

Original Correspondence.

OFFICIAL SUPERVISION OF METALLIFEROUS MINES.

SIR,—Having just had an opportunity of perusing the "Metalliferous Mines Bill," introduced into the House of Lords a few days since, I am struck with astonishment at such a production emanating, as one must presume, from such gentlemen as Messrs. Kendal and Davey. From Lord Kinnaird and Dr. Holland it would have been, to a very limited extent, excusable; but for gentlemen who are interested in the county of Cornwall, and no doubt in mining also, to virtually hand over the sole management of all the metalliferous mines in the kingdom to any single official of the Board to be constituted, is an act so suicidal to mining, and so monstrous, that I am at a loss to understand it. The only appeal the unfortunate mine owners have, in case of supposed hardship, is to men who must be thoroughly ignorant of mines and mining; for instance, they must be in no way connected with mining, nor in any way what- ever beneficially interested therein. (Query; where can they be found?)

Those officials have the power to order the erection of any kind of machinery, and to any amount of cost—how, when, and where they please—for raising and lowering the miners; of altering and reconstructing all footways to suit their notions, as often as they, in their wisdom, think proper; and, if they choose, may at any time prohibit the use of gunpowder in mines if they deem it dangerous to the miners, and from any of those things there is no appeal, not even the precious one aforementioned. A whole series of plans and sections must be sent to the Board periodically, (say) three or four times annually. This alone, in some mines, will require a corps of draughtsmen continually for the purpose. The Inspectors, too, have the power to call off the agents from their duties, either by day or by night, to examine them to any extent, for any length of time, and as often as they think proper, without any appeal. In short, the whole Act seems to be framed for the purpose of closing all metalliferous mines in the kingdom, which it will most certainly do if allowed to pass into law. If it were possible to find any mine proprietors so foolish as to work an extensive mine, and adopt the Act in its entirety, the same thing would utterly destroy all the pure air in the mine, and as a matter of course stop itself. I refer to the immense quantities of timber that would be required uselessly to be fixed, as it is well known to men of experience that large quantities of timber in close places very seriously vitiate the air; so that instead of the Act being a boon to the miner it will be a positive curse.

I beg to suggest, Mr. Editor, that you publish the Act *in extenso*, and ask all your mine subscribers to bear their equitable portion of the cost of advertising it. I think there will be no reluctance to pay it, and the mining public will be much enlightened thereby.

April 6.

A WELL-WISHER TO MINING.

(As a "Well-Wisher to Mining" is so warm in his condemnation of the Bill, perhaps he will oblige by pointing out the objectionable clauses as they occur, and the grounds for objection, in a letter for next week's Journal, as Lord Kinnaird is most desirous that the merits of the Bill should be thoroughly discussed by those practically engaged in mining. In another column we publish a very full abstract of the Bill, which will, no doubt, answer the same purpose as reprinting it entire, as suggested.)

CORNISH MINES VALUATION.

SIR,—I should like very much to know upon what principle a Cornish mine is valued, or is there any principle at all? further than what Hidi-bras tells us, that "The value of a thing is just as much as it will bring." Looking at your Mining Share List, I notice many mines set down at hundreds of thousands of pounds; thus, Great Wheal Vor, 5908 shares, at 40s. per share—236,320s. Now, what is there to represent this sum? Is it plant? Is it reserve minerals, or what? I could understand a value being put on a favourable lease of a large mineral field, where the minerals are regular, such as coal or ironstone, or minerals won and explored, where the levels are driven both above and below it; but it appears to me to be reckless to calculate on the continuation of any lode. If we adopt this view, then the value of a mine will be the value of the plant and the value of the reserves. Thus, supposing there are (say) 50,000 tons of ore in reserve, which can be worked out at the rate of 12,000 tons a year. It is the present value of 50,000 tons of ore, spread over four years, and the value of the plant, and all else must be speculation. Now, the value of the plant is trifling. Thus, I suppose the whole machinery of the mine alluded to, for anything I know, may not be worth 36,000s., and the reserves are worth 200,000s. Are they worth that? or how much is put on the prospective value? It is an exceedingly unwise thing to keep on a capital or share account which has been all expended in driving unprofitable exploring levels. Such a thing is very apt to deceive. It is true the varying price of the shares gives the public an idea of the fluctuation in the value; still, many people who buy shares know little of the state of matters, until some fine morning the bubble bursts, and all that they have for their money is a few old engines and useless stock. I do not select Wheal Vor because of its worth, for of that I know nothing, but it is frequently mentioned in the Journal, and it serves to illustrate my remarks.

A COLLIER.

SLATE QUARRIES AS AN INVESTMENT; AND THE DIP OF MERIONETHSHIRE SLATE ROCK.

SIR,—I was no little surprised at seeing Dr. Bower's letter in the Journal of March 25. Inclined heretofore to put the best construction on his assertion that the dip (inclination of the rock) of Merionethshire slate veins is from 4° to 5°, or nearly horizontal, I thought he might have been at the Craig Ddu Quarry, where the dip is nearly horizontal, and had taken for granted that the dip of the whole range was the same. But I really cannot conjecture how to construe the assertion that Mr. Greaves's slate rock lies at an angle of from 4° to 5°. At where, pray, could the learned doctor have looked? It occurs to me that he looked at the floor of the gallery, saw a little inclination in it, and, without examination, took it to be the dip of the rock. If he had taken a minute inspection, he would have found the dip of Mr. Greaves's rock to be from 43° to 45°. Let us further examine the Doctor's reasons for saying that the dip of the Merioneth slate veins is chiefly so.

1.—He "asked Mr. Greaves's quarry captain whether the dip was generally the same in Merionethshire as theirs, and he said he thought it was, but it differed in some places." Now, with all respect due to Dr. Bower, it seems strange to me that a gentleman, who may have been for many years in the exercise of his profession accustomed to close reasoning, can call this a reason. It is not a reason, but a supposition; and not even a supposition of his own, but of Mr. Greaves's quarry captain. However, the supposition is not true. Let Dr. Bower instead of visiting one individual quarry visit the whole or greater part of them, and the result will be that, so far as I am acquainted, he will find only one instance of horizontal slate rock in Merionethshire, which is, as before stated, the Craig Ddu Quarry. This is, I consider, a most fortunate fact for Merionethshire; because a horizontal rock would be fully 10 per cent. more costly to work, and, from the specimens I have seen of it, much inferior to vertical and inclined rocks.

2.—That "I have seen the dip on the surface, I think, near Festiniog, but certainly about the boundary line between Merionethshire and Denbighshire." Here we certainly have a fact—such as it is—to take hold of. The Doctor has seen the dip of a rock; he does not exactly know whether in Merionethshire or Denbighshire, but somewhere about the boundary line. This, backed up by the word of Greaves's quarry captain, and the dip of Greaves's quarry, is considered as sufficient evidence in favour of its being the general Merioneth slate dip. But all three, awkwardly and unfortunately, turn out to be fallacious.

1.—Every tyro in quarrying matters could have informed the Doctor that the dip of the surface generally varies considerably from the true dip. Especially so when the superincumbent pressure is great, and the support deficient.

2.—Granting this was the true dip at that identical spot where the Doctor saw this top rock, it by no means follows that this is the general dip of the county. Two quarries may be opened on the same vein, within a few hundred yards of each other, and the dip vary considerably. Let us quote an instance, by way of illustration, in Merionethshire. Within about 300 yards of the Craig Ddu Quarry, before referred to, an old quarry has been opened where the dip is about 45°, while at Craig Ddu it is nearly horizontal.

3.—If the Doctor would come over to Llwyngwril, in Merionethshire, and pay a visit to Dr. George Alfred Walker's quarry, we could show him a dip of 80°, or nearly vertical; and there are several of its neighbouring quarries of nearly the same dip. Dr. Walker, although distinguished in physics, has had but comparative short experience in the slate trade, yet he guessed the dip of the quarry within a few degrees; and it is strange that

an authority of Dr. Bower's standing should make so great an error. Again, if he chooses to visit the Corris Quarries, he will also find these of a vertical dip.

From these facts, we cannot but come to the inference that the horizontal dip is an exception, and an inclined and vertical one the rule in Merionethshire. In conclusion, I have to state that it is not from any love of controversy that I enter the field of discussion on this subject; and I have to express my deep regret that Dr. Bower, who may well be considered as an authority, and on whose judgment many may have relied, should have committed so great an error. More especially so when I am aware that amongst the many slate quarrying schemes offered to the uninitiated public, many of them worse than worthless, and others of a very valuable character, it is, I conceive, of the greatest importance that the judgment of the investor should be as little clouded as possible, and I think it is very deplorable that such conflicting statements should be made in what ought to be a very simple question; and that in this one, and highly important as it is (in the matter of economical slate quarrying), the bewildered public should be assisted in forming a correct judgment. And it is only on this ground, Sir, that I trouble you with this communication.

April 4.

SAMUEL JENKINS.

PROTECTION OF INVENTIONS AT INDUSTRIAL EXHIBITIONS.

SIR,—My attention has just been attracted to some remarks in your Notices to Correspondents, headed "Inventor," with regard to my strictures on the Acts passed for according what is termed protection to unpatented and unregistered inventions and designs first exhibited at the Dublin Exhibition, and industrial exhibitions generally. I fear "Inventor" has quite mistaken my views, for I am, in reality, quite as much disposed as he appears to be to favour the exhibition of new inventions and new designs, if the law allows it to be done with safety; but I differ from him as to there being any safety attainable under the above-named Acts, for, as I stated in my communication on the subject, that as regards the Dublin Exhibition, anyone who thinks it to his advantage to deprive the exhibitor of his right to take out a patent can do so simply by at once, and during the period of holding the exhibition, making use of the invention outside its doors. It is not a question of temporary injury by an unauthorised use, as "Inventor" seems to suppose—it is deprivation of all future protection for, and property in, the invention; and the same effect will be produced if any exhibition, publication, or use be continued after the Exhibition is closed. And this latter use will have the same effect under the General Industrial Exhibitions Act, unless, indeed, the exhibitor is able to protect himself under the Patent Laws before the Exhibition closes; and as these exhibitions do not remain open longer than a few weeks, it is by no means certain that money will be found for the purpose in that time. The sale or disposal of an inventor's rights *in posse* are not transactions which can be effected in a few minutes, by crying in the streets—"Who will buy, buy, buy?" Hence I look upon the exhibition of an invention implicitly relying on these Acts as placing all on the cast of a die. I have been an inventor myself, and can practically realise the true position of these matters. There are other flaws and blemishes in these Acts, which render them very untrustworthy, and I can see no effectual and simple plan of dealing with this matter but by supplementing the Acts by an enactment reducing the cost of provisional protection for Letters Patent. (As concerns designs, the provisional registration is now only 1s. for ornamental designs, and 10s. for utility designs.) At all events, the stamp duty on provisional protection for exhibited inventions, if applied for during the period of exhibition, should be permitted to stand over for some length of time, or the American caveat system should be allowed to exhibitors for a fee of 5s.

I am about to publish a pamphlet, in which I shall analyse the Acts, giving the enactments verbatim; and I shall be happy to forward a copy to "Inventor," upon perusal of which I think he will see that I am right. Temple, March 31.

F. W. CAMPIN.

CYLINDER FOUNDATIONS.

SIR,—Referring to Mr. Shepherd's communication, in the Supplement to last week's Journal, it appears his scheme was to sink a cylinder through the Goodwin Sands, to form a foundation for building upon. There is nothing new in sinking cylinders through quicksand; it is a common plan of sinking through quicksand, and I can point out a place where 20 fms. of quicksand and mud were put through 40 years ago by sinking cast-iron cylinders, put on at the surface, and pressed down with weights; and I doubt not it was resorted to much earlier.

SINKER.

THE LOCK-OUT IN THE IRON TRADE.

SIR,—It is to be hoped that some settlement will be made between the ironmasters and their men before another week passes, and thus save a great deal of misery amongst thousands who have the misfortune to be mixed up with the disputants—by no fault of their own, such as labourers and others more or less connected with the iron department. Doubtless, both parties are to blame—masters and men. The former have acted too hastily; in my opinion, they should have held consultations with their men, and stated what grievances they had, when doubtless some understanding would have resulted, to the satisfaction of all concerned. Of the two they are most to be blamed. The great point is now, which is the best way to settle matters? It is well known that the men of North Staffordshire refused to accept of the required reduction of 10 per cent. on the suggestion of the South Staffordshire executive, at Brierley Hill, who wished to make an experiment as to what effect it would have on the masters. The Gateshead or North of England executive fell in with the views of the Brierley Hill, and in conjunction agreed to render every support to the men in North Staffordshire; the latter, therefore, were not so much to blame up to a certain point. The ironmasters of South Staffordshire and North of England, fearing that if the men succeeded in one locality that they would soon be similarly situated, at once took steps to combat the powerful organisation of ironworkers, and formed a league offensive and defensive, resulting in notices being given to all their workmen that if the puddlers of North Staffordshire did not resume work within fourteen days their works would be closed, and a general lock-out would be the result, the object being to starve the men to submission. The masters, I hesitate not to state, acted wrong, and by so doing have injured themselves in the eyes of all who know anything of the iron trade, and can think honestly. With respect to the two executives of ironworkers—Gateshead and Brierley Hill—anyone who has read the speeches of the leading men since the lock-out, must be greatly pleased with the moderate counsel they have given to their friends of North Staffordshire, and the desire they evince for an amicable settlement. Unfortunately, the wiles of London step in and mar such good intentions, by accusing the Brierley Hill council of throwing the North Staffordshire men overboard, and then pass resolutions to afford more support to those men. In order, of course, to prolong the lock-out, though they pretend to be anxious to see an end to the dispute. I can readily perceive the motives which influence the ironworkers' executives from dispensing with the London trades pecuniary support, and in that matter they act wisely—seeing a little ahead. But not to extend my remarks at great length, I would suggest as the best means to bring the matter to a close that the executives of the ironworkers should make the following proposition to the men of North Staffordshire:—"The advice we gave you of not acceding to the proposed reduction we have now reason to believe was not wise. We do not, therefore, attach any blame to you for acting upon our advice; but we now think that you can resume work upon the terms offered by the employers, considering all the circumstances of the case, which is somewhat peculiar. We will, on your resuming work from—say, Monday next, or such day as may be fixed upon, make up to each of you the whole amount of wages you might have been able to earn (an average being taken for that purpose) from the day of your leaving off work." Such a proposition would, I think, meet the case, and be satisfactory to all parties. The men of North Staffordshire are, in my humble opinion, entitled to such remuneration, and the two executives in honour bound to pay the same. I am much surprised that a proposition of the kind was not made. When all are at work again some plan can be devised for any future disagreements, rules, &c., framed, which may meet with the concurrence of masters and men, and arbitrators appointed having the confidence of both parties. I earnestly trust that such may speedily be the case, and that my little mite may be looked at in its proper light, as a kind of balancing of masters and men, and may the "oil thrown on troubled waters" diffuse a spirit of calmness around.—*Sunderland Valley, March 29.*

AN ACCOUNTANT.

PUBLIC COMPANIES' PURCHASES.

SIR,—It seems to be an almost general practice with shareholders to complain, after the establishment of a company for commercial purposes, of the terms upon which the business has been purchased, and thus it is that by far too many capitalists feel that all property bought by public companies is paid more for than it is fairly worth. Although, of course, there may be cases in which this complaint would apply, I believe it is only in very rare instances, and that as a rule the promoters of an undertaking, who are usually directors, will see that the purchase money is not put too high, in order that they may be enabled to present an attractive prospectus to the public. The course adopted in making the valuation for the purchase of Messrs. Cammell's Cyclope Works, by Charles Cammell and Co. (Limited) appears to me, as a shareholder, as fair as any that could have been adopted. As it was, of course, desirable for all parties that the apportionment should be one that could not afterwards be objected to, the work of valuation was split up into three divisions, and for each division two valuers were nominated—one to represent the seller, Mr. Cammell, and one to represent the buyer, the company; and the principles upon which the valuation was to be made were clearly defined. When the apportionment had been completed, Mr. Leppock, and one or two others, asked to have the valuation of one of the divisions reopened and revised, on the ground that they thought the apportionment too high. Mr. Cammell objected, basing his objection on the fact that both parties had been represented in the apportionment, and that since both the valuers were agreed as to the amount there was no just cause why that amount should be called in question. The party of Mr. Leppock, however, continued to urge the appointment of a third party, and in order to satisfy them Mr. Cammell consented that an arbitrator should be appointed—Mr. Anderson, the inspector of machinery at Woolwich Dockyard, being suggested as the person

to whom the reference should be made. The proposition naturally met with the approval, both of Mr. Cammell's friends and the opposition, and there is now complete unanimity with every member of the company—the fear of litigation which some entertained being now altogether dispersed.

Now, we have an instance of a dispute most amicably and satisfactorily settled, it does not prove how easily the reputation of a company may be permanently damaged by the inconsistency of a few dissatisfied shareholders, and without the existence of any real cause of complaint against the company? Had Mr. Cammell obstinately refused the arbitration, as he most justly could have done, inasmuch as the bargain being made it is most unreasonable to expect that a smaller payment would be accepted; the company would have been thrown into litigation, and the business probably ruined. The very liberal behaviour, however, of Mr. Cammell in the matter has placed the company in even a higher position than it has hitherto occupied, for it affords indisputable evidence of the great interest taken by him in the welfare of the company, and it must be peculiarly gratifying to all concerned to find that Mr. Wilson, the managing director, enabled to report the solid progress of the business, that every department of the work was constantly in full operation, and that the total sales for this had greatly exceeded those of last year. He also explained that the lock-out in the iron trade had not in any material extent affected the business of this company, and that there were reasonable prospects of an early re-opening of the mills and works. In conclusion, he testified the highest terms to the efficiency of the staff by whom he was so ably supported in the administration of the business of the company. With such a position of affairs as this we may well wait, without anxiety, the general meeting, to be held in May.

Manchester, April 3.

A SHAREHOLDER.

COLLIERY WORKINGS IN SOUTH WALES.

SIR,—Mr. Naysmith appears very uncomfortable in his replies to my letters. He now states that I admit having spent 2000l. in opening, or rather, as he has it, to "shut up the colliery." I do not find having said any such thing. Will he refer me to such an admission in any one of my letters? He also assures us that he has not spent 2000l. at his Bedlam Colliery. I am inclined to admit the truth of his statement, but if only 1000l. had been spent, with his extensive colliery operations, I fear this colliery would be something like the silver-lead mine bound up in red tape, and laid up in lavender, some pigeon-hole in Chancery-lane. But when he speaks of shutting up a colliery, must he not hear that I have to say on that subject. I could not imagine why he alluded frequently to the Cwm Neol Colliery Company. I hope he does not wish to mix my name with that company. I certainly was Colliery only in the existence of a colliery company until I was reminded of it by one of the "Local Fraternity." I have before me the copies of the lease of the Cwm Neol Colliery Company. I have also the seams of coal and other minerals on this property, and when this colliery commenced operations I should say no body of gentlemen ever had brighter prospects before them, had they gone the right way to work. But! "a lion from the north" appeared—at least he pronounced himself a lion; he would show them that about it, and how to work a colliery. The Aberaman and Cwm Ammanites bowed their heads before this northern lion; but, whether a lion or not, the management of this splendid property was entrusted to his charge. There was a good market for the coal, a railway to the colliery—in fact, all that could be desired to make it a good paying concern, and its proprietors happy.

There was a range of coal 6 ft. thick, over 251 acres, without a fault, capable of yielding 6000 tons of coal to the acre, or 1,686,000 tons of coal, in one 6-ft. seam alone. In the years only about 500,000 tons of coal were sold, and this 6 ft. seam was reported to be exhausted, or—

Total quantity of coal	1,686,000 tons.
Coals sold	500,000 "

Coals lost	1,186,000 tons.
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If we take the entire loss at—say, 1,000,000 tons, we have the following results in shape of loss to the proprietors of the property, to the owners or lessees of the colliery, and to the wealth of the nation at large, or—

1,000,000 tons at 1s. per ton royalty	£ 50,000
10s. per ton, less royalty, the value of the coal	450,000
Loss to the proprietors in ten years, in cash	84,000

Total £284,000

All this ruin accrued in the short space of ten years; at the end of that period this seam of coal, over the 251 acres was supposed "used up." Now, this is something like shutting up. If I only spent 2000l. to again shut up this colliery I certainly did it very cheap. The original lessees, I believe, returned to land, from whence they came earlier, perhaps wiser men. Will Mr. Naysmith permit me to ask him, did this ruinous affair under Mr. Shepherd's management, or under the Naysmithian management? Perhaps he will be so kind as to enlighten us on this subject? Will he also permit me to remind him that, contemporaneously with the doings of the Cwm Neol Colliery Company, close to the Aberaman station was another colliery, where the proprietors scraped together the enormous sum of 160,000l., by working the same seams of coal as at the Cwm Neol Colliery. How come this state of things to pass? Some information is given. But further, I found at the Cwm Neol Colliery, from the plans, that out of every 21 yards of coal surface area only 7 yards had been worked, and 13 yards left in for all to support the roof; while as to the headings and roadways about the works underground, these resembled "a complicated rabbit warren" more than that of a colliery. I commend these facts to Sir William Armstrong for his next paper before the British Association, with this remark—If the above is a sample of working seams of coal in the North, no wonder we hear the howl from that quarter that the North Country collieries will be exhausted in 150 years from the present; perhaps some old book worm, 150 years hence, will read these letters in the library of the British Museum, contemplate the ruin, and give his opinion in the then *Mining Journal*. I may also remind you, "junior" that I had nothing but the bones to pick, the debris of the previous feast, at the colliery; but I certainly found plenty of meat on the bones. I should say, from the vast amount of coal left in the earth, there was no fear of my predecessors doing any damage to the colliery; the greatest sufferers were the late proprietors, who permitted this state of things.

When I left the colliery it was capable of turning out upwards of 5000 tons of coal per month; this does not look like "shutting up." "Long wall" men are not afraid of little damage, but they always make large profits from their works. But in this instance the damage done to the Cwm Neol Colliery only leaves them a few of the flinty regions of an untrodden imagination. Mr. Naysmith reminds me that I am not charged for turning stalls, &c. I may tell him, that so far as I could I discouraged these things, as too great a luxury for me to indulge in.

I am sorry he has forced me to write this letter; but the "young gentlemen" should recollect that those persons "who live in glass houses should not throw stones," and those persons who talk so glibly about "shutting up collieries," should first examine their own position.—20, Throgmorton-street, April 3.

GEORGE SUTHERLAND, G.E.

MANAGEMENT OF MINES.

SIR,—In many cases it is left to the manager of a mine to appoint or discharge the under agents, or they are appointed and discharged by the company, or board of management, at his discretion, or through his instrumentality, which will do very well when the manager is doing his best for the interest of the whole company; but when the manager is kept in office by "Brass Wire," there is an important and fatal objection to it—the manager would undoubtedly work for the interest of "Brass Wire" alone, and then, as a matter of course, the other agents have to do the same, and not say a word against it, or even about it, to anyone, or else, by the end of the month, they are reported to "Brass Wire," who at once says discharge them, and put others in their places. Again, if gentlemen from Glasgow, London, or elsewhere, were to visit the mines, the agents are placed in a special position by "Brass Wire" or their manager, as will keep them from giving a true account of anything, for fear of being dismissed. Where there is the least suspicion of the existence of a "Brass Wire" the company themselves ought to appoint the under agents, and place them in such a position as the manager could not obtain their dismissal without a fair hearing of the case, for and against, at a general meeting, where the manager and other agent or agents should appear face to face. I once knew an instance of this being done, which brought to light many unmanly actions in the manager's character, and it resulted in the manager having to leave, and the agent being put in his place, which proved to be a great advantage to the company. Companies ought sometimes to correspond with the manager as well as the manager, that they may know who and what they are, and whereabouts. A manager's actions ought to be open to the scrutiny of the wide world, and if he does not do so he ought to be published throughout the country.

What do gentlemen think of a captain being sent to inspect a mine, and on doing so write to condemn the floors, that a large quantity of timber should be bought to construct new? What do gentlemen think of a captain being sent to inspect a mine and told to condemn the management, that he might be appointed as manager after the other was discharged? What do gentlemen think of the erection of an useless engine on a mine? What do gentlemen think of erecting an extra 15 heads of engine on a mine, and causing it to be broken to pieces and rendered useless, until some hundreds of pounds be expended to repair it, and at the same time not work enough for the state in use before? Why, to answer two purposes—first, the benefit of "Brass Wire," or secondly, the benefit of the manager, by getting his percentage. "Brass Wire," or some part of them, may have a man to act as manager for them at the rate of 200l. or 300l. per annum, with percentage on orders given for machinery, materials, &c.; then they get him appointed to, perhaps, six or eight mines, at the rate of six or eight guineas per month from each, which is paid into "Brass Wire," and which they then use as a profit. Perhaps those whom the cap may fit, if there is anything said to them about it, may say that they take no notice of such correspondence, and that they treat it with contempt; but I should think that gentlemen would not listen to such subterfuges without a strict investigation. Whoever may read this letter and wish to make anything out of it, I would impress upon their minds the necessity of first reading the one that appeared in the Journal of March 14, on the same subject. If any gentleman that is a shareholder in mines, within a distance of a few miles, has any thoughts as to whether these letters are applicable to their property or not, and wish to know they can, by inserting their address in this Journal. They shall know by private letter.

Gunnislake.

P.L. TELL YOU ALL.

ON MANAGERS OF MINES SPECULATING IN SHARES.

SIR,—When at meetings it has on several occasions occurred to me that justice had not been done to the shareholders by those in their employ, and that especially the system was most pernicious of allowing managers to speculate in the shares of those mines with the control of which they are entrusted. If an agent "bulls," it is not unreasonable to suppose that he will colour his reports, and talk "about the payment of dividends for years to come," and that, on the contrary, when the shares, by reason of such reports, have considerably advanced in market value, such an agent sells a "bear," we may presume for reports stating "that the lode has unexpectedly fallen off, and that coal will be required." But it is signally unfortunate for the successful operation of such "bear" transactions when disinterested and trustworthy agents are called in to inspect the mine, and whose reports are of such a uniformly favourable character as to induce some of the largest shareholders not to dispose of their interest, but to increase it, and that to a considerable extent.

Admitting the principle of allowing agents thus to speculate—which, by the way, I most unhesitatingly do not—it would be a curious enquiry as to which produces the most beneficial results—the "bull" or the "bear" agent? The "bull" agent, prior to writing his reports, has, of course, bought shares, believing that he has the power to cause them to advance in market value; while, on the other hand, the "bear" agent, prior to writing his unfavourable reports, has sold shares which he does not own, and der the assumption that his report will cause the shares to decline in value, and that he will thus be able to "buy them back" at a less price than that at which they had been previously sold. In the one case, purchases are made at oftentimes extravagant

and there appear to be just sandstone on the top of lead ground, and we have seen as much, and even more than could be expected at such a depth, and quite as much of it as was seen in the best mines in the neighbourhood. An experienced lead miner, who saw and worked on the first lead discovered in West Chilverton, and who has also

I have not a great deal to say of mines this week. The MAULDERS still report well. Capt. John Daw, who has just made a special inspection of the Old Mine, has furnished a report, which will be very gratifying to the shareholders, especially to such of them as are not captivated by the prospect of a large population, and of the caution which characterises all his reports. The shaft sinking to the 80, and which was down $3\frac{1}{4}$ fms., is stated by him to be going down between the two parts of the lode which they found so rich in the 70, both east and west, and which he has no reason to doubt will be found equally rich at the 80. They are not yet through the core-course in the 70 east, but the quantity of water coming in from the east is so great, that they must have found it. The lode, however, is not close at hand. The clistem, which they have just completed in the shaft sinking to the 80 west, is not yet through the core-course, and is not yet close at hand. The shaft sinking to the 80, will enable them next week to stop the ore ground in the back of the 70 east, which is worth 50¢. per fm., at a cost not exceeding 6¢.; and should they continue as rich as at present, they will break ore fast. In the bottom of the 70, where the

BRITISH MINES

... ..

...a rich lode, worth 2½ tons per fm., and is moderately easy for sinking.

low the 40 east is the same as last reported, worth 2 tons of lead per fm. We have com-

ducing at times rich stones of coated yellow copper ore. In the 88, west of Hitchin

With last week's Journal was given a SUPPLEMENTAL SHEET, which contains a Paper on Mining Machinery—Boring and Coal-cutting Machines; Proceedings at the South Wales Institute of Engineers Meeting; the Millwall Ironworks, Shipbuilding, and Graving Docks; the Mineral Resources of Mexico; the London Gas Companies; the Association for the Prevention of Steam-boiler Explosions; Foreign Mining and Metallurgy; the Invention of Cylinder Foundations; Manufacture of Zinc, &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, APRIL 7, 1885.

COPPER.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Best selected, p. ton	90	0	0	91 0 0
Tough cake, p. ton	88	0	0	—
Sheeting & boiler, p. ton	94	0	0	95 0 0
Bottoms, p. ton	90	0	0	—
Old (Exchange), p. ton	91	0	0	—
IRON.				
Best Welsh, in London, p. ton	7	2	6	7 10 0
Ditto, to arrive, p. ton	7	2	6	—
Nail rods, p. ton	8	10	0	—
Sheet, in London, p. ton	8	10	0	9 15 0
Hoops, ditto, p. ton	9	12	6	10 10 0
Sheets, single, p. ton	10	7	6	11 0 0
Fig. No. 1, in Wales, p. ton	4	10	0	—
Best metal, ditto, p. ton	4	0	0	5 0 0
Bars, common, ditto, p. ton	6	0	0	5 0 0
Do, merch., p. ton	7	10	0	—
Ditto, railway, in Wales, p. ton	6	0	0	6 10 0
Ditto, in London, p. ton	12	0	0	—
To arrive, p. ton	12	0	0	—
Fig. No. 1, in Clyde, p. ton	2	13	2	18 6
Ditto, f.o.b. Tyne or Tees, p. ton	2	9	6	—
Ditto, Nos. 3, 4, f.o.b. do, p. ton	2	6	2	5 6
Railway chairs, p. ton	5	10	0	6 15 0
" spikes, p. ton	11	0	0	12 0 0
LEAD.				
English Pig, ordy, soft, p. ton	20	5	0	—
Ditto (WR), p. ton	21	12	6	—
Ditto sheet, p. ton	21	0	0	—
Ditto lead, p. ton	22	0	0	—
Sheets, p. ton	28	0	0	28 5 0
Ditto white, p. ton	23	0	0	—
Ditto patent shot, p. ton	23	0	0	—
Spanish, p. ton	19	10	0	—

* At the works, 1s. to 1s. 6d. per box less.

REMARKS.—The Metal Market during the past week has not shown any marked change from the position it has maintained for some weeks past, and we have still to record that much less business is being done than is satisfactory to those parties principally concerned in the metal trade. We trust that the resolution come to by the ironmasters at their meeting, at Wolverhampton, to re-open their works in North Staffordshire will have the effect of putting an end to the unfortunate state of affairs which has been prevailing there, and that the men will now see the propriety and advantage of returning to their work at once. This will give an impetus to the iron trade, which has been at a standstill for some time, and cause a little more activity to prevail in the market. Orders from India still continue to come in but slowly, and generally orders from abroad are by no means so numerous as could be wished, still we trust that with so easy a money market as is now ruling, and the facilities which are thus afforded for entering into commercial operations, we shall see a better state of things arising ere long, although we fear that some time must elapse before we shall have the metal market in a very flourishing condition.

COPPER.—The market is rather flatter than it was last week, and the demand is only moderate; manufactured can now be bought at 94l. to 95l. IRON.—A special meeting of the ironmasters of North and South Staffordshire and Derbyshire was held at Wolverhampton, on Wednesday, to consider the steps to be taken relative to the Lock-out. The Chairman (Mr. W. O. Foster) announced that the North Staffordshire masters had come to the conclusion that their purpose would be no longer served by a continuance of the lock-out, and that seeing that so much suffering was being entailed upon innocent persons, they were willing that it should be withdrawn, especially after the course which had been taken by the masters in the North of England. He would, however, state that it was the opinion of the committee that the North Staffordshire masters ought to be upheld by the masters of the South; at the same time, there was an opinion prevailing, both in and out of the committee, that the course which the masters in the North had taken made it no longer incumbent upon the masters of South Staffordshire to abide by a contract which one party to it had broken. The following resolution was unanimously agreed to:—"That the ironmasters of North Staffordshire having, by their trade resolution of April 3, released this district from the undertaking entered into with them on Feb. 16, and believing the assurance given by the men of South Staffordshire that they disapprove of the conduct of the North Staffordshire men, and that they will not assist them, directly or indirectly, during the continuance of the present strike; it is hereby resolved that the works in South Staffordshire be re-opened this 5th day of April." Although the men have not yet decided to return to work, there is not much doubt that they will generally begin next week, after a little parlying on the part of those who are now the least anxious to begin. In Welsh ironworks continue well employed, and there are more orders on the books than has been the case for some time. The upward tendency of prices has been checked by the resolution of the North of England ironmasters to recommence operations; and buyers are holding out to the utmost rather than submit to the advanced quotations. It is generally agreed that when once the lock-out is at an end the trade will immediately return to its usual state, with the exception that makers will have the benefit of having cleared away their stocks. For the week ending March 30 the exports were 1257 tons. In Swedish iron prices still remain firm. In Scotch pig-iron the market has been more than usually animated during the week. Considerable transactions have taken place, and prices have still further advanced. At the commencement of the week prices stood at 52s. 1½d. to 52s. 3d. cash, and 52s. 4½d. to 52s. 6d. one month, but advanced to 52s. 10½d. cash, and afterwards to 53s. cash; after which, however, the market became flatter, and prices fell to 52s. 9d. cash and 53s. one month, and at the last advices had further declined to 52s. 6d. cash, and 52s. 9d. one month.

LEAD continues rather inanimate, and without any change whatever in prices.

TIN.—The market for foreign has continued to improve, and Straits has further advanced in price, transactions having taken place at 88l. cash, then at 88l. 5s., and more recently at 88l. 10s. cash, which may now be considered the present quotation. The stock in warehouse in London on April 1 was 3370 tons, against 2620 tons at the same time last year. Banca in Holland has been sold at 57 ½s., and more recently at 56 ½s., but transactions are not numerous. The stock in Holland on March 31 was 48,050 slabs, against 55,098 slabs at the same time last year, and the arrivals for next sale were 150,918 slabs, against 104,380 slabs at the same time last year. The demand for English is only moderate.

SPELTER.—The market has rather improved during the week, and business has been done at 19l. 7s. 6d. on the spot, and holders are now asking 19l. 10s. The stock in London on March 31 was 7365 tons, being 1210 tons less than last month.

TIN-PLATES.—Some of the makers have sold considerably of late, but at lower prices. STEEL and QUICKSILVER remain without alteration.

THE LIVERPOOL METAL MARKET—APRIL 6.

FIG-IRON has been "bullied" up to 52s. 6d., 52s. 9d. We are inclined to think the pig-iron market is sound, and prices will not decline; nevertheless, we cannot see our way to expecting any considerable improvement in price.

MANUFACTURED IRON.—The Lock-out is at last over. The South Staffordshire masters opened their works last night, and the men go in at the reduced scale of wages, pledged not to support the men on strike in North Staffordshire. This, it would seem, has been done with the sanction of the North Staffordshire masters, who do not see how the continuance of the lock-out could benefit them under existing circumstances. To our mind, the best course for the North Staffordshire masters to pursue would be to give their puddlers notice that unless they come to work at once at the drop they would be refused work altogether. If they still were obstinate, it would be only a question of time to replace them with men from other districts, and till then work could be carried on by purchasing

puddled bars from South Staffordshire; the demand for iron from that district is not so great but that plenty of puddled bars could be spared for such a purpose. Liverpool, more than any other port, is greatly inconvenienced by the strike in North Staffordshire, as the bulk of the iron manufactured in that district is either exported or consumed here. Welsh iron has been much easier the last day or two, in consequence of the expected settlement of the lock-out, and, no doubt, we shall have to report some slight reduction in prices next week. Staffordshire iron must come down, too; there is very little demand here, and a fortnight will clear off all Liverpool arrears at the various works in South Staffordshire; before the end of the month we shall see prices much what they were before the lock-out took place, and large buyers will hold off as long as possible in expectation of this. Prices quoted to-day are—Best bars, 8l. 5s. to 8l. 10s.; hoops, 9l. 5s.; sheets, 9l. 10s.; rods, 8l. 10s. to 8l. 15s.; bars in Wales, 6l. 7s. 6d. to 6l. 10s., f.o.b. less 3 per cent.

TIN.—Very little doing in English, and selling freely 4s. under smelters' quotations. We certainly have not seen the bottom price yet, for the heavy stock, both in England and Holland, combined with such a limited demand, must keep prices down.

TIN-PLATES.—Charcoals are still a drag in the market, and move off very slowly at low prices. There is a somewhat better demand for cokes, but prices are wretchedly low, with very little immediate prospect of improvement; quoted at 20s. 9d. f.o.b.

COPPER.—The market is firmer, and some trade has been done at stiffer prices.

BIRMINGHAM, APRIL 7.—The re-opening of the works in South Staffordshire has produced no fresh animation in our market; some makers speak of sufficient orders, others complain of the want of them; it is one thing to open the works, and another to keep them going; it can plainly be seen that it was from no necessities of their own that the masters have renewed the employment of the men. The following are the price of the week:—Pigs, common forge, 2l. 15s. to 3l. 5s.; melting, 3l. to 3l. 7s. 6d.; mine forge, 3l. 5s. to 3l. 15s.; better class, 4l.; hydrates, 4l. 7s. 6d. to 4l. 15s.; hematites, 3l. 7s. 6d. to 4l. 5s., according to quality; foundry, 3l. 12s. 6d. to 3l. 15s.; West Cumberland Hematite Company's Workington, No. 1, 4l.; No. 2, 3l. 17s.; No. 3, 3l. 15s.; No. 4, 3l. 13s. 6d.; No. 5, 3l. 12s. 6d., all delivered in this district; North Staffordshire, 3l. to 3l. 5s.; Cleveland district, grey forge, 3l. 1s. 6d. to 3l. 8s.; melting pigs, No. 1, 3l. 7s. 6d.; No. 2, 3l. 6s. 6d.; No. 3, 3l. 5s. 6d., long weight, delivered in this district; Shropshire cold-blast, 4l. 10s. to 5l., delivered into this district; Spiegeleisen, 6l. 10s. to 6l. 15s.; second quality, 5l. 10s.; puddled steel, 12l. 10s. per ton; cast steel block (raw), 1l. 6s. per cwt.; cast hammered, 1l. 14s. per cwt., f.o.b. at Hull; spiegeleisen ore, 20s. at Rotterdam; first-class white and mottled pig steel iron, 6l. per ton in Liverpool or Birmingham; ilmenite (titanium ore) for melting puddling furnaces, delivered to North of England ports, 22l. 6s. per ton; cost of delivery into Derbyshire, 6s. 8d. to 10s. 5d.; delivered to North and South Staffordshire, at stations, 32l. 6s. per ton, short weight, for which we are agents in above-mentioned districts; manufactured iron, marked bars, 8l. 10s.; hoops, 9l. 10s.; sheets, singles, 10l.; doubles, 11l. 10s.; lattens, 13l.; angles, 8l. 5s. to 9l.; gas strips, 8l. to 8l. 10s.; nail sheets, 7l. 10s. to 8l. 5s.; nail rods, 7l. 10s. to 7l. 15s. at works; the commoner makes of our district in bars are being quoted 7l. 5s. to 7l. 8s., at works; puddled bars, 5l. 10s. to 6l. 5s.; scrap bars, 6l. 10s. to 7l., according to quality; best puddled drawing wire, list price, 11l. 10s., but makers have relaxed a further 10s., and so quote at 10l. 10s.; North Staffordshire bars, 7l. 10s.; best, 8l.; best best, 8l. 10s.; best angle iron, 8l. 10s.; best T iron, 9l.; best bulb iron, 9l.; bridge and tram rails, 7l. 15s.; best plates, 9l. 10s.; best boiler plates, 9l. 10s.; best hoops, 9l.; best waved hoops, 9l. 5s.; rivet iron, 9l.; half rounds, oval, and corner iron, 7l. 10s.; tip iron, 9l. 10s.; bevil iron, 8l. 10s.; fencing wire, 9l. 15s.; best puddled drawing wire, 10l. 5s.; puddled bars, 5l. 10s. to 6l., delivered at Manchester, Liverpool, or this district; Welsh bars, 6l. 15s.; Welsh rails, 6l. 15s. to 7l. 2s. 6d., at works; Welsh puddled bars, 5l. 5s. to 5l. 10s., delivered to stations in this district. It must be remembered that these prices are quoted as "at works," unless when otherwise specially mentioned. Charcoal billets, 10l. to 13l. 10s., delivered in Birmingham or Wolverhampton.—*Rylands' Iron Trade Circular.*

THE TIN TRADE.—Mr. L. Th. Van Houten (Rotterdam, April 1) writes:—"Our Tin Market has been quiet throughout the past month, and only small quantities changed hands at prices varying from 56 ½s. to 57 ½s. However, the delivery of 9640 slabs proves that the demand for export has been good. The consumption of tin on the Continent may be considered very satisfactory, though consumers are still acting with great caution. It appears that the present low price of the article does not yet attract the attention of speculators. The decline since the same date last year is 12 l. or 20l. per ton, and since March, 1883, 20 l. or 33l. 6s. per ton. The position of Banca tin in Holland on March 31, from the official returns published by the Dutch Trading Company, is:—

	1885.	1884.	1883.
Stock in Holland, Feb. 28	57,690	61,183	51,740
Delivered during March	9,640	6,085	7,650
Stock on warrants, March 31	48,050	55,098	44,090
Arrived towards next sale	150,918	102,025	95,955
The preceding returns of 1885, compared with those of 1884, exhibit an increase of the import for March of 5107 slabs, or 162 tons; an increase of the import for the three months of 22,445 slabs, or 713 tons; an increase of the deliveries for March of 3555 slabs, or 113 tons; a decrease of the deliveries for the three months of 1883 slabs, or 50 tons; a decrease of the stock on warrants of 7048 slabs, or 224 tons; an increase of the unsold stock of 48,893 slabs, or 1552 tons; and an increase of the total stock of 41,845 slabs, or 1328 tons; whilst there has been a decline of the quotation of 12 l., equal to 20l. per ton. The Government Returns for the month of January are as follows:—			
	Jan. Import.		Twelve months.
From Java.....Tons	899.	312.	1883. 1882.
" England	26	1	299
" Other countries	1	2	16
Total tons	926	315	6061
	Jan. Export.		Twelve months.
To Germany.....Tons	72	59	1883. 1882.
" Belgium	44	17	1794
" England	15	—	462
" France	27	16	1343
" Hamburg	—	—	968
" America.....	—	—	192
" Other countries	4	6	21
Total tons	165	98	381

THE TIN TRADE.—A larger business has been done in this metal than for some time past; but in the face of an excellent demand, both for consumption and export, the prices have fallen fully 2l. per ton. At one time, indeed, the decline threatened to become serious, but the steady buying of important parcels stopped the fall, and prices have recovered 20s. again from their lowest point. The actual position of the article remains unchanged from last month, as the supplies advised fully equal the large consumption, as shown by the deliveries; but the opinion is more general that the present price being low, the article is becoming worthy of attention for investment. We must not, however, forget that we cannot tell where the bottom is, nor is it certain we have touched it yet, that the excess in stock, both here and in Holland, must cause any improvement to be very gradual, and that prices in Penang and Singapore, drooping as they are, seem to have no effect in stopping the shipments home, in fact that they are only limited by want of ship-room. The arrivals of Banca during March into Holland have been large, while the deliveries have been of an average character; already over 150,000 slabs have arrived towards the next sale, which promises to be larger than usual. At present, in the face of these facts, Banca is kept up about 10l. above the price of Straits tin; the result is that Straits is steadily filling the place of Banca, and will continue to do so more and more, as a certainty, so long as the difference in price so much exceeds the difference in value. It is difficult to obtain reports that we can trust regarding the production of English; but as the demand must have been checked by the relative high prices, we should think the stock in Cornwall has been accumulating in smelters' hands, and that any increased demand would be supplied without any difficulty. The quantity of tin here and in Holland on March 31 was as follows, compared with the three preceding years:—

	1885.	1884.	1883.	1882.
Slabs.	48,050	55,098	44,090	44,090
Stock in Holland	48,050	55,098	44,090	44,090
Arrived for next sale	150,918	102,025	95,955	95,955
Stock here	3370	2620	2580	2580
Total tons	9740	8020	6020	6158

The quantity of tin now afloat for England is 953 tons, against 607 tons last year; and to the Continent 47 tons, against 173 tons last year.

ENGLISH TIN.—The market has been dull throughout the month, and prices have been very irregular; at one time it was almost impossible to effect sales, but latterly the demand has improved, but prices are still from 8l. to 4l. under smelters' quotations. STRAITS.—During the first fortnight of the past month the market was very dull, and prices gradually declined to 85l. 10s. cash, and 86l. 10s. 6d. but a very large amount of business has been done. The steady demand for export and consumption, in addition to purchases for investment, has caused a favourable reaction, and we close with a firm market, 87l. buyers, cash.

BANCA has been more or less neglected for want of operators, prices being held too high. Early in the month as high as 97l. has been paid; but holders have considerably reduced their price, and transactions have taken place at 94l. and at 93l. In Holland but little business has been done, and prices have not undergone any change of

importance; there are now sellers at 56 ½s. a price quite out of proportion to the ruling here: the latest advices from Holland report a very dull market.

TIN-PLATES.—There has been a decidedly improved demand for tin-plates during the month of January last, compared with 1883 and 1884, the following:—1883, 71,156l.; 1884, 74,533l.; 1885, 71,258l. The declared value of tin-plates exported during the month of February last, and the first two months of 1885, compared with 1883 and 1884, has been as follows:—

	1885.	1884.	1883.
Month ended Feb. 28.	£38,360	£25,352	£24,463
Two months ended Feb. 28.	£169,415	£149,905	£149,905

—VON DÄDELZEN AND NORTH.

THE COPPER TRADE.—Mr. J. Pitcairn-Campbell, of Liverpool, reports: The smelters having shown considerable inclination to purchase raw material, business has resulted, at an advance of 3d. per unit on ore and regulus, and the price on bars. The last mail from South America has brought the following quotations for shipments during the last seven years from that coast to all parts:—1856, 1857, 1858, 1859, 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, 1869, 1870, 1871, 1872, 1873, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885. The Board of Trade returns for January and February 1885, and the first two months of 1886, and for the same months of 1883 and 1884, are as follows:—

	1885.	1884.	1883.
January	2436 tons	2184 tons	2184 tons
February	2436 tons	2184 tons	2184 tons

Sales during the fortnight have been:—

	1885.	1884.	1883.
Mar. 17.—100 tons bars, out of second hands	£31 10 0	£31 10 0	£31 10 0
" 17.—5 tons Urmantia ingots	£9 0 0	£9 0 0	£9 0 0
" 17.—150 tons regulus, ex "Knight Templar"	£17 0 0	£17 0 0	£17 0 0
" 18.—360 tons regulus, at Swansea, ex "Robert Bright"	£17 0 0	£17 0 0	£17 0 0
" 18.—590 tons ore, at Swansea, ex "Otter"	£17 0 0	£17 0 0	£17 0 0
" 18.—126 tons regulus, at Swansea, ex "Martha Jackson"	£17 0 0	£17 0 0	£17 0 0
" 18.—450 tons ore, on spot here, by tender, ex "Cape Horn"	£17 0 0	£17 0 0	£17 0 0
" 20.—762 tons ore, on spot here, by tender, ex "Knight Templar"	£17 0 0	£17 0 0	£17 0 0
" 21.—530 tons regulus, on spot here, ex "Knight Templar"	£17 0 0	£17 0 0	£17 0 0
" 22.—735 tons regulus, to arrive, per "Jesse Jamieson"	£17 0 0	£17 0 0	£17 0 0
" 23.—180 tons regulus, to arrive, per "Calabar"	£17 0 0	£17 0 0	£17 0 0
" 23.—630 tons ore, ex "Yanwai"	£17 0 0	£17 0 0	£17 0 0
" 23.—550 tons regulus, at Swansea, ex "Corredora"	£17 0 0	£17 0 0	£17 0 0
" 24.—55 tons bars out of second hands, to arrive (2 months)	£17 0 0	£17 0 0	£17 0 0
" 24.—23 tons bars, on spot here, ex "Chas. Lambert" (2 mos.)	£17 0 0	£17 0 0	£17 0 0
" 24.—4 tons bars, on spot here, ex "City of Kandy" (2 mos.)	£17 0 0	£17 0 0	£17 0 0
" 24.—600 tons ore, on spot here, ex "Chilio"	£17 0 0	£17 0 0	£17 0 0
" 24.—640 tons ore, at Swansea, ex "Coquimbo"	£17 0 0	£17 0 0	£17 0 0
" 24.—597 tons regulus, at Swansea, ex "Caldera"	£17 0 0	£17 0 0	£17 0 0
" 24.—103 tons ore, to arrive, per "Parras"	£17 0 0	£17 0 0	£17 0 0
" 25.—150 tons regulus, here, per "Calabar"	£17 0 0	£17 0 0	£17 0 0
" 25.—45 tons bars, on spot here, per "Alpaca" (2 months)	£17 0 0	£17 0 0	£17 0 0
" 25.—95 tons bars, on spot here, per "Alpaca" (2 months)	£17 0 0	£17 0 0	£17 0 0
" 27.—25 tons bars, to arrive, per "West Australian" (2 mos.)	£17 0 0	£17 0 0	£17 0 0
" 30.—368 tons Knockmahon ore, by tender	£17 0 0	£17 0 0	£17 0 0
" 30.—148 tons Canadian ore, by tender	£17 0 0	£17 0 0	£17 0 0
" 31.—300 tons regulus, ex "Calabar"	£17 0 0	£17 0 0	£17 0 0

Quotations at 17s. per unit for ore and regulus, 83s. per ton for bars, and nominal at 11s. to 15s. 3d. per unit. Stocks of Chile copper ore, &c., in the second hands, as near as they can be estimated, are as follows:—

	Ores.	Regulus.	Bars.
Liverpool	1015	1015	2257
Swansea	1952	717	307
Arrivals since my last have been:—	Ores.	Regulus.	Bars.
"Delmira," Arica	—	—	—
"Oberon," Michil	410	—	—
"Ananath," Pau de Azucar	633	—	—
"Chilio," Islay	600	—	—
"J. Jamieson," Totorillo	—	740	109
"Calabar," Coquimbo	—	615	—

TIN.—Sales of Straits have been made at 86l. 10s. on spot, and 86l. for export; market closes steady and rather firmer at 87l.

THE MINING SHARE MARKET has been particularly active since last, and a large amount of business transacted in one or two mines, and prices have risen in a week from a few shillings to as many pounds, and to discoveries considered of importance. We have frequently expressed the opinion that nothing but a few good discoveries would re-animate the mining market, and for many months we were singularly barren of news that they have set in, however, let us hope they will rapidly manifest each other, and put life and spirit into the market. East Grenville and South Bedford shares, a week ago, were sold at 3s. 6d., and on Monday morning rose to 3½ buyers, and leave of 2½ to 3, owing to the discovery of a lode worth 60l. per fm. The mine, originally the southern part of Bedford United, and situate between Old Gannalslake and Wals Crebor, has been at work for some years, with good prospects and large calls, and it is hoped the present discovery may lead to something presently profitable. It has been made in the deep adit, 7 fms. east of the cross-course, where, in a rise to the south of the level, the lode was found worth 60l. to 70l. per fm. for rich yellow ore. The sparry parts of the lode are being stripped down as far as the cross-course, in hopes of finding the ore all the way. West of the cross-course a rise is being put to discover the same shoot of ore. The discovery is 60 fms. deep, the whole ground to surface, and the agents are of opinion that they have found a large, and lasting deposit of rich ore. Old Gannalslake shares have also been in demand at 15s. (5s. paid). North Dolcoath shares have risen from 1s. to 25s., owing to an improvement reported in the mine. Clifford, 30l. to 31l.; Carn Camborne, 24s. to 26s. Wheel Balles have been largely dealt in, and leave off 32 to 33; in the 130, west of Whistling shaft, the lode is 2½ feet wide, worth for tin 12l. per fm., and likely to improve. The 80, west of Stevens's, is worth ¼ ton of copper ore per fm. At

Copper ores, 41,322 tons (21 cwt.).—Fine copper, 2530 tons 4 cwt.—Amount of money, 203,245. 12s. 0d.—Average produce, 6½.—Average standard, 1257. 8s.—Average price (per 21 cwt.), 47. 18s. 6d.

WATSON AND CUELL'S MINING CIRCULAR.

WATSON AND CUELL.

MINING AGENTS, STOCK AND SHARE DEALERS, &c.,
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

Messrs. WATSON and CUELL having made arrangements for transferring their weekly Circular, which has had so large a circulation during the past ten years, to the columns of the *Mining Journal*, their special reports and remarks upon Mines and Mining, and the state of the Share Market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. Watson, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with Statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium published in 1843 Mr. Watson was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. Watson and Cuell have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share-dealing than there is at present; and, from the lengthened experience of Messrs. Watson and Cuell, they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON and CUELL transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt, and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 20 years active connection with the Mining Market.

Messrs. WATSON and CUELL also inform their clients and the public, that they transact business in the public funds, railways, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON and CUELL are almost daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON and CUELL having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are enabled to supply shares in all the best mines at close market prices, free of all charges for commission.

CHANGES.—Two very notable instances have occurred this week illustrating the old saying, that "it is never so dark as just before the dawn." North Dolcoath shares were at 1s., and even given away, a week or two since. This week, owing to an improvement, they have been sold as high as 25s. East Gunnislake shares were sold on Friday last at 7s., and on Monday rose to 3l. 5s. buyers. The discovery here is on a lode running through Old Gunnislake, and also Wheal Crebor, the sett being situated between these two mines. Old Gunnislake shares have risen to 15s., 20s., on 5s. paid, though we had a difficulty in persuading the public to take them up at par. The mine is as good a speculation, and in better ground, than East Gunnislake.

WHEAL TRUSCOTT.—Captain Richards, of Hingston Down, says of this mine—"The north lode, now wrought on to a depth of 14 fathoms, is one of very great promise, being about 5 feet wide, containing very strong capels, congeal quartz, and an abundance of gossan, with rich copper ore disseminated throughout, altogether presenting such an appearance as to expect large quantities of ore by a very little further exploration." The ore broken from the lode at present is, he adds, "of a very rich description; in fact, equal to any I have ever seen." The agent of Frank Mills, who inspected it this month, says—"It gradually improves in depth, and is as fine a lode as can be seen in any mine at that depth (14 fathoms). Several tons of copper ore have, according to another agent, Captain Rowe, been broken to this depth, and as this is the lode which will be intersected 25 fathoms deep, without any further call upon the shareholders, we think it must be allowed that a more favourable opportunity has seldom offered for embarking in a sound legitimate undertaking, where the loss cannot be much, while the chances are of a high order for very large profits. The dues are only 1-18th, and there is ample water-power for working the mine, rendering the heavy costs for steam-engines, &c., unnecessary. Several gentlemen have applied to us for allotments of shares, as if the concern were a new one, instead of one worked at considerable expenditure for some time, and a valuable discovery made. We stated at the first that Mr. Wescomb, looking upon it as the best sett he had ever seen in his life, and the reports of practical agents confirming the value of the discovery in the shaft, had, at his own risk, purchased the majority of the shares, and authorised us to offer what he meant to dispose of at 1l. 10s. The balance of capital in hand for working is 650l., or enough for six months."

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PROSPECTUS.

This valuable mine is situated in the parish of Gwennap, Cornwall, on the northern declivity of Carn Marth Hill, a sister and adjoining hill to Carn Brea, on the northern side of which the celebrated Carn Brea Mines are situated, in one of the first mining districts in Cornwall, in a stratification productive of the greatest courses of ore in that celebrated county, in confirmation of which it is only necessary to quote the following statistics:—Carn Brea, Tinnor, Cook's Kitchen, and Dolcoath have returned upwards of £900,000 profits; Wheal Butler and Basset, Great South Tolgus, East Pool, Croft, and South Keskow, £250,000; South Tolgus, North Pool, North Keskow, Seton, and West Seton, £500,000. These mines are situated to the west. To the east are the Gwennap Mines, one of which (the United Mines) returned £2,000,000; Wheal Jewel, £1,500,000; Poldice, £200,000; Wheal Clifford, celebrated for its hot lode and riches, and other productive mines. To the south, is Treasvan, which returned £151,422; Penstrulth, £130,000 in dividends. To the north, are North Downs, Wheal Rose, Harmony, Montague, and the Tolgus, which returned £250,000.

The lodes of many of these extraordinary mines traverse West Trelawny. The successful development of this property is, therefore, a matter of apparent certainty from its analogy to its rich neighbours, it being merely a matter of sinking to the depth at which the riches in the other mines have been found to exist. The lodes have already been opened on superficially, and their general character, size, bearing, and appearance destroy any uncertainty as to this expectation. One lode in particular, which is from 4 to 5 feet wide, is of a most splendid character, containing large quantities of gossan, which experience has proved to be a reliable indication of rich deposits in depth.

With such a situation as this mine possesses, being literally surrounded by mines of renowned wealth, it will be at once seen that the prospects of this company are free of the ordinary risk of mining enterprise; and its further development appears to be certain of similar discoveries, and of consequent profit to shareholders. It is in a state of infancy with regard to depth, being only 50 fms. from surface. This level can be continued eastward on the course of two lodes in virgin ground, which will also give a high range of backs, without the aid of machinery, to the depth of 70 fms. Two shafts are in good repair and available, and the operations can be carried on at a trifling expense. It is proposed to effectually develop the mine by sinking a shaft in the middle of the sett, which will command the junction of two lodes; and as junctions of lodes are of the first importance in mining, leading to ores in vast quantities, the greatest expectation, according to universal experience, may be safely relied upon.

The natural advantages of the property are highly favourable to inexpensive exploration, the water being drained to a great extent by surrounding mines, thus preventing the necessity of heavy and costly machinery. The property has been inspected by the following eminent practical men, whose opinions are unanimous as to the great value of the property, and its certain prospect of becoming a most lucrative undertaking:—Capt. Pope, manager of Wheal Basset; Capt. H. James, inspecting agent for Messrs. Webb, Geach, and Pennington; Capt. Edwards, late manager of Wheal Kitty (St. Agnes); Capt. Webb, manager of the Cathedral Mine; Capt. Glasdon, manager of the Clifton and Westworth Mines.

Subjoined are extracts from their reports. Detailed copies may be had on application.

EXTRACTS REFERRED TO.
I have every reason to think that this property, if properly explored, will make a profitable and lasting mine. I recommend it with confidence to any gentlemen inclined to speculate in mining.
Captain POPE.

Taking into consideration the number of lodes running through the property, and the surrounding mines having yielded such riches, I believe it to be a really good speculation, which on development will be found to richly remunerate the shareholders.
Captain HENRY JAMES.

I consider this property well worthy the attention of capitalists, as in all probability it will only require a moderate capital to bring it into a profitable state of working.
Captain EDWARDS.

In conclusion, I can most safely recommend the mine as an investment free from the ordinary risks of mining, and I am firmly convinced that whoever works West Trelawny will be most amply rewarded for their outlay.
Captain J. WEBB.

After carefully regarding the surface of this property, with its character in the adit 50 fms. deep, I consider it a mining property of more than ordinary merit, the development of which I feel confident will prove a great success.
Captain GLASSON.

March 13, 1865.—A careful inspection of this mine, both underground and surface, enables me to pronounce it to be a most splendid property. Having regard to its situation, being completely surrounded by the richest mines of our famous county, and to its own mineralogical features, the lodes being of the same character precisely as its neighbours, I see no chance of its failing to become equally valuable. It will to me be strange and unaccountable if the mine does not prove exceedingly rich. If my judgment prove wrong, I shall consider my thirty years' experience of no avail in forming a conclusion.
ELISHA HARVEY.

Applications for shares must be addressed to Messrs. HARVEY and Co., the financial agents to the company, Clarence Chambers, Manchester.

FORM OF APPLICATION FOR SHARES.

To the Directors of the West Trelawny Mining Company (Limited).
In 10,000 shares of £3 each.

GENTLEMEN, I request you to allot me shares of £3 each in the above company, which I hereby agree to accept, subject to the Memorandum and Articles of Association of the company; and I herewith send £ , being the amount of first instalment of 10s. per share payable on the same.

Name
Address
Profession or business

Dated day of 1865.

THE DEVON GREAT MARIA CONSOLIDATED COPPER MINING COMPANY (LIMITED).

Capital £50,000, divided into 5000 shares of £10 each.

Deposit £1 per share upon application, and £1 per share upon allotment.

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PROSPECTUS.

This company has been formed for the purpose of working an extensive mineral property, situated immediately to the west of the celebrated Devon Great Consols, which, upon an outlay of £1024, has paid in dividends £248,152, the present value of that property being £388,600.

The geological position of the two mines is identical, and the same lodes pass through the entire length of the sett; it is, therefore, reasonably expected that equally favourable results will be realised.

Upwards of £15,000 has already been expended upon the property in opening upon the lodes and making the necessary erections for a great and permanent mine, independent of which £1500 has been paid to the lord in advance, on account of dues.

The total outlay required to bring the mine into a profitable state of working has been carefully investigated, and cannot exceed £10,000.

The directors have the utmost confidence in recommending this investment to their friends and the public. It has elements of success equal, perhaps superior, to any mining enterprise undertaken since the issue of shares in the Devon Great Consols Mine, adjoining. More than one-half of the entire capital is already subscribed.

Applications for shares to be accompanied by a deposit of £1 per share, and £1 per share will have to be paid on allotment.

The operations at the mine are being carried on with all possible dispatch, under the able superintendence of Capt. Richards.

Prospectuses, reports, plans, and forms of application for shares can be had from the secretary or bankers.

Notices to Correspondents.

* * * Much inconvenience having arisen in consequence of several of the *Numbers* being the past year being out of print, we recommend that the *Journal* should be regularly filed on receipt: it then forms an accumulating useful work of reference.

MONTGOMERYSHIRE MINES.—MINE'S PAY.—As the columns of the *Journal* are open in behalf of the workmen as well as the masters, will you allow the following to appear in your next impression? It is generally the case with some shareholders in mines to grumble at the rate of wages earned by the miners, the cost heavy, &c., whereas in fact their earnings generally are not tantamount to the labour done; but to them. Whilst every other labouring man gets his pay weekly, the miner has to be very thankful indeed if he gets his money monthly; and, moreover, there are no miners now in Montgomeryshire where the poor miners are working on their 9th month without receiving any pay. You may naturally suppose the consequence—the keepers are getting impatient (at least, their patience is exhausted), and the miners are bordering upon want and starvation. I trust this will meet the eyes of some of the proprietors, and bring them to the rescue.—JUSTITIA.

WHEAL POLLARD.—It will be more satisfactory to co-partners in this adventure if shareholders in arrears of calls will pay them. The shaft has been several years sinking to a depth of 50 fms., at a cost of 3l. 10s. per share, and success not expected until the shaft were driven at that depth to cut the seven or eight lodes this sett contains, some of which proved very rich in Craddock Moor; a fair omen of proving equally so here when intersected, and rewarding the shareholders handsomely for persevering and outlay. Shareholders, deliberate before forfeiting your shares; for some who speak disparagingly of the mine, and have forfeited their shares, if the mine were abandoned would gladly purchase the sett, form another company, and work the mine with energy.—A SHAREHOLDER.

ROSKELLY SILVER-LEAD MINE.—I should feel obliged if some correspondent would furnish a few particulars of this undertaking which are the directors, and what are the prospects? My brokers cannot ascertain satisfactory, or indeed any information; hence the necessity of my troubling you.—NOVICE.

MINING IN IRELAND.—SCHILL RAY MINING COMPANY.—I shall be much obliged if any reader of the *Journal* would be kind enough to state if the time for winding-up a Limited Liability Company allowed the liquidators for so doing is unlimited? The above company's affairs have been in the hands of the liquidator over twelve months, and the shareholders have no notion of what he has done, or intends to do. It is reported, however, in the City that an arrangement with the lord of the mine has been made for a new lease, and also the re-working of the mine; but upon what terms conditions the shareholders are not informed. Has the liquidator of a company the power to dispose of a mining property privately, and make arrangements with a third party for re-working a mine, without the consent of the original shareholders? or what remedy have the shareholders in such a case?—A SHAREHOLDER.

MINING MACHINERY.—Some four or five months ago I read in the *Journal* a paragraph to the effect that a newly-invented machine for driving or sinking in mines was about being patented and brought out which would surpass in all respects everything of the kind previously invented. As I regularly read your paper, I have kept a look out for a further notice of this machine, but have not seen it again mentioned. In last Saturday's Supplement, however, you gave a very interesting account of a paper read by Mr. John Downie, at a meeting of the Institution of Engineers in Scotland, on the several cutting and boring-machines at present used, and particularly one by Mr. Low, and of an engine for compressing the air to work it. I cannot help thinking that the machine I saw referred to by you some months back, and shall be glad if you will say if that be so; but whether or no, I will esteem it a favour if you will give the address of Mr. John Downie or Mr. Low, as the machine will be a matter of much import to the mines with which I am connected, and I should wish to have some information about it.—P. [A letter forwarded to our office for either Mr. Low or Mr. Downie will reach them.]

WHEAL SETON.—The dividend at the coming meeting is expected to be 3l., thus giving about 15 per cent. on the present price of shares; but it is stated by agents who have lately inspected the mine that the ends in the aggregate will produce only 10s. of copper ore. If such is the case, a continuance of this high rate of interest will, I imagine, be prejudicial to the future development of the mine. Can any of your correspondents inform me if this statement is correct, and what is the estimated value of the ore in reserve?—A SHAREHOLDER.

TOLVADEN.—When, some few years ago, it was difficult to find buyers for Great Vinal a few shillings, some far-seeing people, who looked beyond the daily price lists, placed up all the shares they could get, and have since reaped a rich harvest for the audience they placed in the mine and its manager. Tolvadden, which some few years ago paid regular dividends, and has never up to the present time called upon the proprietors for more than 12s. a share, has of late been made not so far off when the mine may again be in the ascendant, and become a star of the first magnitude. It may be remembered that this mine never made any call till of late years, having paid in own way from the first, till the dividends ceased, owing to the bar of hard ground through which they have been passing for the last two years or more. Great credit is due to the unflinching exertions of the manager and principal proprietor, for the energy with which the shaft has been sunk and levels driven under the most adverse circumstances. But, like most things in this world, patience and perseverance generally meet with an ample reward.—T.

STATE QUARRIES.—"J. G." will do well by writing to the *Journal* office, addressed to me, with name and address in full, when he will be corresponded with.—PROMIS.

ABERHANAN IRONWORKS COMPANY.—The unfortunate shareholders in this mismanaged concern have need to besic themselves and combine for their mutual protection. There is too much reason to fear another call will shortly be made. Let us unite to demand an investigation into the affairs of the company, and ascertain whether the directors and their friends have fairly paid up the call made last year, like the rest of the shareholders, and what they have to show for the large amount already subscribed. It is quite evident, so far as I can learn, there is no prospect of getting possession of the mine;—the overreaching of the promoters having defeated itself, and brought the affair to a complete fix in consequence. The terms of the prospectus not having been complied with, there can be no doubt if we combine we can compel these houseless gentlemen to disgorge; and if anyone will take the initiative, I am sure he will receive plenty of support. If only 20 or 30 put down 5s. each, we may find a little Chancery, which will soon bring matters to a conclusion, and I am quite ready to dole that amount if necessary, but no time should be lost.—A DECIDED SHAREHOLDER.

THE ABERHANAN IRONWORKS.—As a shareholder in this company, I am alarmed at being informed of the probability of another call being speedily made. What are the directors about that they do not convene a meeting, and lay a full statement before the proprietors? True, that being personally interested in the successful working of the undertaking, we ought to rely upon the exercise of their best efforts to that end, but from the sad exposure of some dealings in connection with the origination of the company, we are naturally doubtful that further evil may not be in store, and, therefore, anxious to learn from those in power the real position of our affairs. To allay these fears, I hope that a meeting will be called.—SHAREHOLDER.

SHARE DEALING.—We never interfere in the sale or purchase of shares; neither do we recommend any particular mine for investment or speculation, or broker through whom business should be transacted. The addresses of most of the latter appear in our advertising columns.

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, APRIL 8, 1865.

The Board of Trade Returns for the two months ending February 28 are not encouraging. With respect to the exports of articles, the produce and manufacture of this country, they show a falling off, in comparison with the same period of last year, of 1,246,154l., the difference between 23,111,707l. and 21,865,553l.; but as regards the first two months of 1863, there is an increase of 4,521,822l., the aggregate declared value having then been 17,343,731l. Why this result should present itself in these figures is difficult to determine, seeing that money is even more abundant and cheaper this year than last, but it is probably one of those circumstances which often occur temporarily in statistical returns, and which may be wholly removed by the next report, which will give the issue of the first quarter of the year. In January, 1865, the total was 10,489,339l. against 10,413,586l. in January, 1864, while February, by itself, gives 11,376,214l. for this year, as compared with 12,698,121l. in 1864, so that it is the result of the last month alone which occasions the falling off shown above.

The figures in reference to the several branches of our shipping trade, more especially identified with mining industry, present necessarily a decrease, but not at all in proportion to the amount which they always bear in the increase, which is usually one-fifth, and we now have 257,578l. as part of the 1,246,154l., or rather less than one-fifth. The total for January and February, 1865, is 4,159,311l., against 4,116,889l. in 1864. The decrease in iron is 397,800l.; in steel, 66,505l.; in lead, 44,902l.; in coal and culm, 36,750l.; in tin unwrought, 8287l.; and in zinc, 3208l.; whereas there was an increase in machinery of 146,197l.; in copper, 110,898l.; in tin-plates, 20,294l.; in hardware and cutlery, 13,681l.; and in brass, 3804l.; being collectively 299,874l., against 557,452l. decrease, giving the balance, as stated, 257,578l.

Our transactions in the precious metals and bullion have been in favour of this country. The exports during the two months amounted to 2,452,677l., while the imports were 3,065,863l., or 613,186l. to our credit. The exports were 1,351,948l. in gold, and 1,070,729l. in silver, and the imports consisted of 2,084,401l. in gold, and 981,462l. in silver. The interchange consisted of 935,916l. exported to France, against 80,000l. received; to Egypt 768,472l., against 18,496l.; to Spain 354,584l., against 28607l.; to the Hanse Towns 122,986l., against 26544l.; to Holland 105,273l., against 3307l.; to British North America 50,035l., against 71567l.; to Belgium 49,194l., against 51132l., and to "other countries" 68594l., against 53667l. On the other hand, the imports from Mexico and South America amounted to 1,323,006l., against 59747l. exported; from Australia 358,448l., against 14,967l.; from Portugal 160,165l., against 83614l.; from the United States 976,931l., against 317l.; from Brazil

Mr. Bailey, however, positively refused to grant an advance, and the men wisely refrained from resorting to a turn-out.

A case of some importance to colliery proprietors and ironmasters was heard at the last Tredegar County Court, before Judge Herbert. A collier named David Price summoned John Hughes for 17. 4s. 4d. Hughes was a contractor under the Tredegar Company, and a part of the plaintiff's claim was for wages, and the remainder for club and doctor money, stopped out of his earnings. It was proved that it was customary to stop the club and doctor money at the works of the district. His Honour said the practice of stopping club and doctor money was a violation of the Act; and, as the plaintiff claimed it, he had no option but to allow it. Verdict for 17s. 4d.

THE GETHIN FUND.—The third annual meeting of the committee of management of this fund has been held at Merthyr. The report for the past year stated that 36 widows and their children had been on the fund during the year, and the payments averaged 147. per week. It is intended to keep the children at school until they are 14 years of age. The balance in hand is invested in India Five per Cent. stock, and the trustees were requested to sell out 5000. worth, in order to meet the weekly payments for the next twelve months.

THE TIN-PLATE TRADE.—The quarterly meeting of the Tin-Plate Association was held on Wednesday, at the Queen's Hotel, Cheltenham. In the absence of Mr. Woodruffe, the Chairman, through illness, Mr. Saunders, of Cookley, Kidderminster, was voted to the chair. From the discussion which took place it appeared that the charcoal trade is in an exceedingly unsatisfactory state, and it is evident that the coke plate, mainly from its cheapness, is gradually superseding the charcoal. For coke plates at a certain price there is a fair demand. Quotations were nominally allowed to remain as fixed at a previous quarterly meeting. The American demand has not improved, and it was generally agreed that the greatest uncertainty prevailed as to the future trade with that country. Stocks of plates, as compared with what was the case at the time of the last meeting, were represented as comparatively light, which is an important feature in favour of the trade. After the meeting, the members dined together, as usual.

The South Wales and Great Western Direct Railway is attracting very favourable attention in the district, it being felt that the importance of affording increased facilities for sending coal to the London market cannot be overrated. The line is to run from Wootton Bassett to Chepstow, and in connection with the Great Western Railway it will constitute a line of communication by which the coal field of South Wales, hitherto only partially developed, will be opened for the supply of coal to London by a shorter route than the present, and, as it is said, by a line with gradients more suitable for mineral traffic than those of any other line in the kingdom. As the interests involved are divided, however, the opposition is likely to be great and costly. The unfortunate part of the matter is, that the opposition exists in the vicinity of the line itself, while those to be benefited are here and in London. It is objected that the bill will much interfere with the navigation of the Severn, and that the advantage to be derived (the shortening of the route by a few miles) is not so great as to justify it. It is urged, in reply, by the promoters of the measure, that the inconvenience to the shipping interests of the Severn is nothing as compared with the beneficial results to accrue to South Wales and the people of London and its neighbourhood. The great question is, how many pence per ton will be saved in the carriage of coal by the new route from South Wales to London, and whether the saving is sufficient to enable the South Wales coal to be put into the market at lower price than North Country coal. The fact is that even at present the difficulty of placing South Wales coal east of Paddington is greater than in getting it from here to the Paddington depot.

REPORT FROM NORTHUMBERLAND AND DURHAM.

APRIL 6.—Now that the Lock-out has happily terminated the ironworks of the district are being prosecuted with increased vigour, and it certainly is a most pleasant circumstance that an excellent feeling prevails throughout the works between the men and the masters. The correspondence which has taken place between the parties consequent on the lock-out, so far from causing any ill-will, has had quite a contrary effect; they have, indeed, become better acquainted, and mutual respect has been the result. It is hoped that this state of things will long continue, as the interests of the parties are most certainly identical. Generally speaking, the collieries and principal works of the district are well employed, and are proceeding satisfactorily for all parties, the owners making good profits, and the men earning better wages, than at any former period; still the feverish state of the labour market is shown by the frequent strikes on a small scale which take place. The great demand for men is, no doubt, the main cause of this, but it is much to be regretted that the men do strike without adequate cause, in many cases, when any little misunderstanding takes place. Those disputes could, in most instances, be better adjusted if the men were more cool and cautious about commencing to strike. At present a partial strike of the hands has taken place at the extensive chemical works of Messrs. Allhusen, and a strike has taken place at the Spring Gardens Engine-works, in Newcastle.

The extensive chemical works at Hebburn, now in course of construction for a Glasgow firm, are far advanced, and a portion of them will shortly be completed. The Tyne is at present a very busy scene, but it is destined to be vastly increased in trade and manufacture, and the opening of the coal pits included in the scheme of the Tyne Coal Company will not only increase the trade of the port, but tend materially to encourage the various manufactures on the banks of the river. As we noticed last week, the Tyne Coal Company is beginning to move; the pit to be sunk at Wallsend for the purpose of pumping the high main water is to be commenced with immediately. The shaft is to be 16 ft. in diameter, and large pumps are to be put into it for the purpose of lifting the water. Tenders are being got for the mason work necessary for the engines required. The engines, it is understood, are to be of the most improved construction, and are to be manufactured by an eminent Scotch engineer and engine-builder.

THE PROSPECTS OF IRONWORKERS IN AMERICA.—A Durham miner, John Watson, formerly of Wreckenton, has been out in Jefferson county, Ohio, eight years. Watson, writing from America, and addressing the working men of the North, says:—

"Employers and capitalists, and others interested in getting cheap labour, have sent agents and commissioners among you, who by advertisements in newspapers and publications, would make the English miner and English working man believe that America is at the present time little short of a terrestrial paradise; that here, if the millennium has not already arrived, it certainly is close at hand. Now, the motive of employers and capitalists in sending agents among you is plain. It is to overstock the labour market, and thereby reduce wages. They may tell you that we are making very high wages, which some of us may do, but they do not tell you that all things we have to buy are high also. I worked over twenty years in the coal mines of Durham and Northumberland; therefore I am well acquainted with all the evils you have to contend with. I have worked eight years in the coal mines of this country, so I think I may claim to be able to judge of a miner's life here and in England. In England you have a house and fuel for next to nothing—about 13s. a year; you have medical attendance gratis in case of accidents, and at some places 5s. per week; you have besides, what no amount of money can buy, your friends and relations living about you, and very likely you have a snug little reading-room where you can spend your leisure hours pleasantly and profitably. On the other hand, here I have paid the last year over \$90 for house-rent, and about \$40 for coal; here no medical attendance, except you pay for it; here is no smart money, here are no reading-rooms where you might pass away an hour if you had it to spare, which you might not after you have worked twelve or fourteen hours a day, if you are so lucky as to get work."

REPORT FROM DERBYSHIRE, YORKSHIRE, AND LANCASHIRE.

APRIL 6.—The great struggle between capital and labour has terminated, and to-day the ironworks, which were closed in obedience to the resolution of Feb. 16, are re-opened. The course which the North of England masters have taken has caused much displeasure to those in those counties who kept their works closed, and the Wolverhampton resolution of yesterday has been received as nothing less than a measure of justice. During the Lock-out business has been chiefly done in old stocks, which have been pretty generally lessened. The rates are firmly maintained, and no alteration is anticipated during the next three months. It was intended to reduce the production of pig-iron in the Middlesex district, partly on account of the strike, but its termination will now render that step unnecessary.

The Cleveland Iron Company, whose works are situated at Whitby, have recently commenced to work a vein of ironstone 9 ft. thick, of an excellent quality, and producing an average yield of 35 per cent. The orders for rails and railway springs continue to be large, not only for home consumption, but also for export. In the heavy armour-plate trade the orders are of less extent than formed, but there is a large increase in the demand for iron shipbuilding. Throughout the whole of the iron-making districts of these counties there appears a settled determination amongst the men not to support the North Staffordshire iron-workers, and it is probable that the struggle will not be without its effect.

The Coal Trade has continued tolerably active during the strike, and now that it is ended no doubt there will be an improvement. Some of the railway companies are exceedingly short of rolling stock, and the coalmasters are, as a consequence, greatly inconvenienced. Complaints are made as to the detention of many laden trucks on the South Yorkshire siding at Doncaster. In Lancashire the trade is improving, consequent upon the bettered condition of the cotton trade. Many old mills have been re-opened, and it is confidently believed that the price of the raw cotton will be considerably lower. The district is assuming a more healthy appearance, and several of the relief committees' reports fully bear out the fact. The Derbyshire hard coal is in great demand, and is now successfully competing with the Welsh steam coal, the railway companies having met the coalowners in a liberal spirit with regard to transit. The production of coal in Derbyshire, which has been going on increasing at an enormous rate of late years, is likely to be further augmented during the present one. The new pits of the Clay Cross Company at Pilsley are progressing

rapidly, and as a new field has been opened in this district, a new town will shortly spring up. The Shireland Colliery is also in a forward state, and we hear that in a short time about 200 new dwellings will be erected. Some other large works are being developed on the Erewash Valley line, and when completed the production of the Erewash Valley will be largely increased. There are excellent railway transit facilities for the minerals. Indeed, judging from the large amount of minerals which have been loaded of late, the whole complexion of a great portion of the Derbyshire coal field will be transferred from an agricultural country into a thoroughly mining district.

At the Yorkshire Spring Assizes (West Riding division), Matthew Hyalop, colliery engineer, was indicted for the manslaughter of William Landley, at North Gawber Colliery, near Barnsley. It appeared that the prisoner started the cage before the signal was given, but deceased had no right in the cage, and waiting for the signal would not have prevented the accident. Mr. Justice Willes considered the accident must be looked at as a mere misadventure. It had always been his practice in cases of this kind to hold that there could be no criminal liability where there would be no civil liability. He was aware that this opinion was not universal amongst the judges, and it was his intention on the first suitable occasion to reserve the point for the consideration of the Court above. Verdict, "Not Guilty."

Henry Kitson, 40, manager, and Robert Fisher, 40, bankman, at Willcock's Colliery, York-road, Leeds, were tried for the manslaughter of Edward Pinder. Corvies were being let down whilst deceased was ascending, and a core fell out and killed him. It was proved that Kitson had forbidden the practice in May last. The jury acquitted Kitson, and found Fisher guilty. Sentence, one month's imprisonment.

Mining matters in the Peak of Derbyshire are not assuming a very healthy appearance, and it is remarkable that the share list does not exhibit a mine, with the single exception of the Eyam, in which the stock is quoted at par, the Peak Forest Mine showing the highest mercantile value. This is in the face of the report of the manager of the Mill Dam Mine, who reports that on Tuesday week they weighed 65 tons of ore, being 5 tons more than the previous week. He also reports the work to be continuously good. There are two of the newly-formed joint-stock iron and coal companies (limited) whose stock is barely at par; there is a rumour that one of them will declare a dividend next June, and that may alter the state of things.

The local stock and share markets are somewhat flatter than usual, though money is easier.

SHEFFIELD.—We stated last week that there was every probability of the Lock-out here in the iron trade terminating at once, in consequence of the arrangement come to in the North of England. The expectation has been realised. On Saturday last the masters issued a notice that their works would be re-opened on Monday, and they were opened accordingly, the men agreeing not to support the strike in North Staffordshire. Some of the Staffordshire masters complain that the Northern masters have broken the compact, but the Lock-out was broken by the Northern masters. The other districts of the Sheffield masters were prepared to have adhered to the compact until formally released. Sheffield being, however, more closely connected with the North than North Staffordshire, from the fact of the men belonging to the northern branch of the National Association, it was felt that the decision come to in the North scarcely left the Sheffield masters much of a choice. It is held, moreover, that the lock-out has in the main accomplished the object for which it was agreed upon. It was based upon the fact that the North Staffordshire men had "struck" with the connivance, and were receiving the support of the entire association of workmen; and that the object of the strike was not merely to resist the reduction in North Staffordshire, but to defeat it in the other districts by a succession of strikes. This important object the lock-out has, it is said, effectually defeated, leaving the North Staffordshire men to rely upon such assistance as they can obtain from other trades. It is added that, had the North Staffordshire strike been disavowed and discontinued by the iron workers of other districts in the first instance, the lock-out would never have taken place, and, therefore, that there is good reason for discontinuing it now. If the strike receives no more cordial support from other towns than it is likely to receive from Sheffield it cannot long continue. The Sheffield Trades' delegates, indeed, passed resolutions to support the men locked out here, but the iron-workers complain that, even while the lock-out here lasted, they took no practical steps to afford assistance. The fact is that the Sheffield Trades' Societies have looked on rather coldly from the first, many altogether disapproving of the course taken by the iron-workers; and it is now asserted that they will not move further in the matter, since the lock-out here has ended, the more especially as trade here is generally depressed, and many of the Unions have a considerable number of members "on the box." The steel trade here does not improve; and, but for the railway orders, the heavy trades generally would be flat. The cutlery, plated ware, and other old staple branches are also languid, and complaints are numerous of the difficulty of obtaining payment of accounts, especially from home customers. The arrangement which we mentioned last week has been come to by Mr. Cammell and his co-directors for submitting the differences as to the valuation of the works to the Limited Liability Company formed a year ago, has sent up the shares to 3 and 4 pence.

FOREIGN MINING AND METALLURGY.

Some little business has been done in pig at St. Dizier. As regards charcoal-made pig, we may note that a lot at 49. 8d. has been dealt in on the St. Dizier market. A blast-furnace of the Haute-Blaise has also succeeded in obtaining the same price. Two lots of mixed pig—the greater part coke—have been placed at an average price of 37. 16s. per ton. Rolled iron has been dealt in without change at 87. 12s. to 87. 16s. per ton, according to works and orders; special irons, 87. 16s. per ton, with a scale of 4s. to 8s. per ton per class; and sheets (first category), 97. 4s. to 97. 8s. per ton, first-class, with a scale of 8s. to 16s. per ton, according to categories. Machine No. 20 maintains its price firmly at 97. to 97. 6s. 6d. per ton. Iron wire has some orders; No. 20 is quoted easily at 111. 4s. per ton. A letter from Besancon states:—"The improvement of 3s. per ton established on pig of the Franche-Comté at the last quarterly meeting of foremasters has since been maintained. The demand, without having become active, has maintained a good appearance; and it is especially remarked that some establishments press producers to forward the quantities purchased at the Besancon fair. This state of affairs indicates wants of raw material, and by consequence orders to be satisfied. On the other hand, the appearance of the water-courses, which form the motive power of the great majority of the works of the Franche-Comté, assures them at present, and for two or three months to come, a satisfactory activity. These circumstances, taken together, would constitute a rather encouraging cluster of facts, if the question of the sale prices of iron and plates did not cast a rather decided shadow on the scene. Not only is there no hope of seeing these prices experience the least revival, but, on the contrary, it must be stated that for more than a month they have displayed a fresh tendency to fall, and especially as regards some articles, the sale of which is effected more especially on the Paris market. A certain number of charcoal-worked forges in the Franche-Comté group produce—and that in quantities which, taken together, form a rather important total (800 to 1000 tons per month)—the thin superior plates which find an outlet among Parisian industries. In December, this outlet experienced a decided check, which culminated in February in an almost complete stoppage of affairs. In seeking for the causes of this state of affairs it is found that the consumption has not diminished, but that during the last three months an English importation has been substituted for the French article by one or more speculators or iron merchants of the Paris market. In order to contend against this competition the foremasters of the Franche-Comté district have been obliged to make a reduction of 27. per ton on their products. It is to be hoped that the abuse of the warrant system will cause it to be stopped, as it involves the gravest perturbations in metallurgical industry. The fall in price of certain kinds of plates, &c., has acted in an unfortunate manner on the sale generally of certain products of this group. Forged irons, which sold in December and January at 167. 16s. to 177. 12s. per ton are now only quoted at 164. 8s. to 171. 4s., rolled making 16s. to 17s. 12s. more, according to specimens. As regards the price of plates, it has fallen to 247. per ton; and in any affair of importance business would even be done at slightly lower terms. If we wish to regard some articles, the sale of which is effected more especially on the Paris market, we have only to read the following lines from the *Journal de Saône-et-Loire* on the subject of the growth of population at Creuzot:—"Creuzot comprised in 1856 about 2700 inhabitants; in 1861 this population had grown to 16,000 souls. A fresh special census has just shown an aggregate of 22,398 persons. This commune, formerly of such little importance, has now become the most populous locality of the Saône-et-Loire; 43 departments in France do not contain so populous a town. This growth of human life is the work of industry, as Creuzot is only a vast workshop, placed in a single hand. It is in the movement which industrial genius impresses on the incessant development of a gigantic machine that the whole activity of this population of 22,398 inhabitants rests. In fact, the life of the fundholder and the agriculturist does not exist at Creuzot. Commercial habits have only taken root in the interest of local consumption, and none of the institutions are to be found which usually characterise towns."

Among the dividends announced we may mention a distribution of 37. per share for 1864 on the shares of the Sacré-Madame Colliery Company at Dampremy. The dividend of the Charbonnage du Bois Company (at Quaregnon), for the second half of 1864, has been fixed at 4s. per share. The total revenue of the Monceau Blast-furnaces Company for 1864 is fixed at 21. 4s. per share, or 11 per cent. Of this sum, 11. has been already paid on account, and the balance of 10. 4s. per share became payable on April 1. The dividend of the United Collieries Company, at Quaregnon, for 1864, is fixed at 8s. per share. The second dividend of the Belgian Central Public Works and Railway Plant Company, for the exercise 1863-4, is fixed at 8s. per share.

Rather more firmness continues to be remarked on the Belgian markets, in consequence of the disorders prevailing in several English groups. Some orders have even arrived from England; this is the first effect of these troubles. At Charleroi, tender refining pig has been quoted at 27. 12s. per ton; fixed pig, at 37. to 37. 2s.; and hard pig at 37. 6s. to 37. 8s. per ton. Casting pig No. 5, is held at 37. 14s. per ton with a scale of 2s. per number. First-class rolled irons make 67. 8s. for No. 1; 71. for No. 2; 71. 12s. for No. 3; and 87. 4s. for No. 4. Double T-irons, of ordinary dimensions, have made 67. 16s.; second class, 87. 12s.; third class, 107.; and fourth class, 111. 4s. Plates for ships have made 97. 4s.; the quality used for boilers, 107.; superior qualities, 107. 16s.; and extra plates of fine-grained iron, 127. 16s. per ton.

With reference to the Aubin Ironworks, &c., conducted by the Orleans Railway Company, we learn that last year's production compared as follows with that of 1863, 1862, and 1861:—

Year.	Tons.	Coal.	Iron.
1861	192,931	16,179	
1862	224,007	17,260	
1863	224,199	19,391	
1864	226,590	21,600	

Of the 226,590 tons of coal obtained last year 162,500 tons were consumed in the works, and 74,000 tons were sold, either to the trade or to the traction service. The metallic mines produced last year 430 tons of various minerals, containing 9.76 ton of silver. The profit realised during December last year amounted to 32,197s., or 4½ per cent. on the capital employed.

There is no striking change to notice this week in copper. At Paris, copper is held at an advance. English is now quoted at 902.; rough Chilean at 847. 10s.; and Corocoro mineral at 867. 10s. per ton. Chilean copper has been firm at Havre, but has given rise to less movement; a lot of 27 tons has been sold at 847. on account. On the various German markets prices are maintained with much firmness; the article has a good tone, and is in better demand. At Hamburg, the price of the article has been fixed at 87. 7½ ds. At Paris, prices are nominal. The demand has been limited to the requirements of local consumption on the German markets, and in consequence of the less favourable advices from England and Holland prices are feebly supported. The demand for lead has been almost nil at Paris; rough French has fallen from 204. 16s. to 207. 12s.;

Spanish has been quiet at 277. 12s. At Rotterdam the article has been held at 277. 12s. and 11 ds., and various German marks 107. 12s. At Hamburg there has been no change; Berlin, Cologne, and Stettin have also held at 207. 16s. At Hamburg purchasers have presented themselves in considerable numbers, and of late no affair has been reported. The Breslau market has remained quiet. The ordinary rough zinc of the Vieille-Montagne Company is quoted at 131. 4s. 10 ds. sheets of commerce, No. 5, 84.; ditto, Nos. 6 and 7, 84.; Nos. 8, 9, and 10, 84. and 85.

COPPER ASSAYING.

It will not be an inappropriate conclusion to the notes published in the MINING JOURNAL from Dr. PRECUT's Lectures on Copper Smelting, to thereto a sketch of the different modes of assaying copper ore. It is so it must be admitted that it is impossible to describe with any degree of accuracy (and the accuracy of the assay is of the greatest importance) any mode of assay, for it is by practice alone that the assayer can acquire the knowledge in such matters can be acquired. Since, however, many are interested in copper, who live either by dividends from copper mines or by buying and selling copper ores and metal, and who yet have no time nor opportunity for laboratory practice, and who yet desire to know something of the modes of estimating the value of the article in the hands of the smelter, it is not without interest to the assayer to know that the smelter never pays for the exact percentage of copper in the ore, and what are the methods for estimating its commercial value. For the moment certain chemical modes of copper assaying, we may say, the copper in an ore is always commercially estimated by a dry assay. In the former, fire is the agent by which the metal is extracted, the latter, acids and reagents supply the place of fire.

Now, the wet assay is far more accurate than the dry assay, it approaches more nearly to a chemical analysis of the ore; but, since the smelter more important to ascertain what quantity of copper he can obtain from an ore, rather than the exact quantity of copper in the ore, since he requires, also, to know of what quality that copper will be, he can extract, and, further, since the dry assay, in closely resembling smelters' operations on a large scale, supplies him with this information, accurately than any other process, therefore for these reasons it is the dry mode of assay is adopted by smelters. One might have said that the process invariably adopted in speaking of the copper trade of a foreign country, because copper smelting was in those days confined to England, now the case is different, for Chili and Australia have come into the market of late years as competitors with England in this branch of metallurgy. The dry assay, which is practised alone in Cornwall and Swansea, would doubtless become the universal practice in all countries if it were not dependent rather on the experience and knowledge of the assayer than any general rules by which he can be guided. On this account, and the fact that proficiency in this dry process can only be attained by practice, it is that a knowledge of the method is confined to a few, and the process has hitherto not been generally adopted in foreign countries.

Those who have read the "Notes on Copper Smelting," from Dr. PRECUT's Lectures, will be able to follow the assertion that the dry or Cornish mode of copper assaying is identical with the Swansea process of copper smelting. In the one, as in the other, the ore is first roasted, then melted in a matte or regulus, which regulus is roasted, then melted for impurities, and that copper afterwards refined; and the only difference is that in the assay the number of meltings are diminished by the assistance of certain fluxes. As the final result of both processes, metallic copper is obtained, the quality of which copper indicates the purity of the ore from which it is derived.

Having asserted that the dry assay of copper closely resembles the Swansea mode of smelting that metal, let us see the different stages of the dry assay process, and let us take the small quantity of ore as handed to the assayer from the sampler's hands, it being the duty of the latter to see that the sample represents the average quality of the parcel to be sold. The sample comes to the assayer's laboratory roughly crushed, and the thing he has to do is to reduce it, by pounding or crushing the whole, and he ensures its uniform reduction by passing it through a fine sieve. When thus pounded, or even in its rougher state, it is impossible for the assayer to determine the nature and quality of the sample, from the fact attached to it, so he takes a little of it when crushed, and washes it fully in a flat basin, in a tub of water, by which the dirt is removed, the assayer enabled to determine roughly the percentage of the ore, at the best mode of treating it in the assay. Here, and before the assay commenced, is called into play that experience essential to the proper carrying out of the process, for unless the assayer is able to decide on the ore he has to treat he will assay the same sample a number of times before he arrives at a true return of its contents. To avoid this, however, and confident that no explanation will make clear the general reason the difficulties that assail the practical student, let us propose the one is one that requires to be roasted.

The first operation is to weigh up the quantity to be assayed, the quantity, in this particular case, is 400 grs., and to place it in a Crucible over a low fire, where a portion of the sulphur is expelled, the mudie—almost universally present in the ore—partially converted into oxide of iron. This change is indicated by the colour of the ore, which, as the roasting proceeds, becomes red. If the assay is, in the crucible should be covered; and if the amount of mudie present be very large, when partially roasted, the assay is stirred, and then submitted to a increased temperature. Having roasted the assay a sufficient length of time the pot is removed from the fire and allowed to cool, and to it is added the crucible lime, flux-spar, powdered glass, borax, salt, and one of three following fluxes—nitre, tartar, or sulphur. Now, the amount of foregoing fluxes, thrown into the crucible with the assay, and stirred up with it, are rather determined by practice than rule; certain it is of all but the three last, the quantity used is not of much importance, proportions, however, in which the nitre, or tartar, or sulphur are added, determines the success of the assay. It should here be mentioned that three are not ever put into the same assay, since the functions they perform are totally opposite. Having charged the crucible, it is put on the fire, and the temperature rapidly raised, and if all be successful, after 15 minutes, the charge will settle down, and present a wavy appearance directly this takes place the pot is removed, and the contents are poured into a mould, from which, directly it solidifies, and even whilst still hot, it is removed by a shake, and placed in water, where it is allowed to remain for a minute or two. The water partially disintegrates the mass, and if the assay is removed at the right moment, on opening it a mass of regulus will be found encased in the slag. This matte, or regulus, presents the matte obtained by the copper smelter, called granulated matte. Now, the character of the matte obtained in the assay is most important in truth, on this point hinges the success of the operation. It is very characteristic, and it should present in colour a brownish grey, coarse in texture, and of a dull heavy colour, the assayer knows that it is an excess of iron present, which it will be almost impossible to separate; on the other hand, if too fine in grain, and it has a lustre, and is, moreover, hard, it may be safely said that a portion of copper has passed into the slag; here, as in the former case, it is best to reject the assay, and commence on a fresh one. Provided, however, the regulus of the right kind has been obtained, it is removed from the slag, powdered very fine, placed in a clean pot, and roasted until quite white, a slow fire, being stirred continually. The roasting will take about half-an-hour. To this roasted regulus, when cold, is added salt, borax, and nitre. The whole is well mixed together, and covered with a layer of moist soil. The loaded crucible is placed in the fire, when the mass is working a little white flux and salt is added, while the charge becomes quiet, and it is then poured from the crucible into a mould, the pot being replaced immediately in the fire. Immediately the assay solidifies it is detached from the mould by a shake, and held by a tongs, and immediately plunged into water, which separates the matte from the button of copper. This copper is, therefore, returned to the fire with the slag of the last operation but one, a small quantity of refining flux, and salt. After about six minutes the charge will be to pour, and in carrying this out it will be found that there is a slag at the top, then the button, and beneath that a thick heavy slag, the assayer must, in pouring out the charge, empty the button and slag into one mould, and the thick slag into another, and directly the done so he must replace the crucible in the fire. On removing the matte from the thin slag, if it is not quite bright, it will be necessary to return it to another melting, exactly similar to that just described, a process which must be repeated again and again, until the button is bright. When at last of the right colour, it is put into the crucible alone, and after two or three minutes it will present the appearance of an eye, and the slag by slag; at this point there is thrown into the crucible a little refining salt, and the charge is, after a minute, thrown into the mould, and

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Solicitors.—Messrs. Hancock, Sharpe, and Hales, Birchinn-lane, London, E.C.
Secretary.—Mr. Charles Thomas.

OFFICES.—3, GREAT ST. HELEN'S, LONDON, E.C.

PROSPECTUS.

This company has been formed for the purchase and working of the Cwmbrane, Casars, Pentwyn, and Lady Eliza Mines, situated in the parish of Llangadock and Mithvey, in the county of Carmarthen, within four miles of the Llangadock Railway-station, and eight hours' journey of London by railway.

The present company's grant is very extensive, and is traversed by three large metalliferous veins or lodes, embedded in a clay-slate or bilas stratification, all of which have been found productive of lead ore, so far as explored. Reports of competent persons contain a full description of these lodes, and the extent to which they have already been worked, and all tend to show that the mine has as yet had but little trial, and is now only approaching that depth where, on the average, in the lead mines of the principality, the greatest wealth is obtained.

The ore raised is of the best quality, containing 75 to 80 per cent. of fine Potter's lead and 8 ozs. of silver per ton, samples of which can be seen at the company's offices.

The natural advantages are such that in the course of a short time the company expect to be able to work the mine without the employment of any steam machinery for the purpose of drainage. An unlimited supply of water flows through the sett all the year round, and the work now contemplated when finished will result in the employment of this stream, to the permanent benefit of the company.

An important part of this property has been lately carried on by the Cwmbrane Mining Company (Limited). This company commenced operations with a working capital of £2800—£2000 of which was expended upon the mine, but chiefly in renovating the dressing-floors, providing new pumps, sinking new shafts, &c., all necessary for the proper development of the mine, and of which the present company will have the advantage.

The Cwmbrane Mining Company, during the two years they worked their mine, with all hindrances caused in making alterations and putting in new pumps raised and sold £4157 worth of lead ore; and in the last three months, ending April, 1864, sold £592 worth of ore, at a cost of £559, showing that at the time of winding-up the mine was yielding a small profit.

The present company, by working on a limited scale, could make the mine at least self-supporting; but the object is to thoroughly develop the property, and with reference to that part described as Cwmbrane to extend levels into the northern part, and eventually to do without the aid of steam-power, as suggested by the reports.

Upwards of £20,000 have been from time to time expended upon this property in machinery and bringing it to its present state, so that all the preliminary expenses attendant upon the commencement of a new mine have been already met, and the works put in such a position that immediate returns of lead can and are now being made.

The plant consists of a new 36-in. cylinder Cornish condensing-engine, with large tubular boiler; about 90 fms. of 7, 8, and 9 in. pumps, with 8-in. plunger and drawing lifts, with rods, complete; with and drawing-gear; skip-road and skips; 100 fathoms tramroad and trams; large water-wheel and crusher; dressing-floors and apparatus; jiggling-machines; flat and round buddies, worked by water-wheels; shears and capstans; ropes, chains, and pulleys; tools and utensils of every kind requisite for the efficient working of a mine of this magnitude. There are also reservoirs for supplying the engine and dressing-floors in dry weather, all in good working order and condition. Erected on the mine are two substantially-built houses, suitable for a resident agent or agents.

That portion of the property known as Cwmbrane now produces from 10 to 12 tons of lead per month, which about meets the monthly cost; in addition to which there are reserves of ore, lately discovered by long drives in the north part of the mine, sufficient to enable the company, upon completion of the ventilation and communication with surface, to increase the returns to 30 tons per month. This return, it is calculated, would leave a profit of at least £200 per cent. upon the capital employed; and, with the steady development of the property, and with a continuation in depth of the present productiveness of the lode, there is no doubt that a lasting, rich, and profitable mining property will be found, and fully equal to other successful companies in the South of Wales. No promotion money will be paid, and the preliminary expenses will be strictly confined to such as are indispensable.

The consideration agreed to be paid for the purchase of all the existing rights in the mines and properties, including all machinery, buildings, and the whole of the plant, is £2500—£2500 of which to be paid in cash, and the remaining £2500 in shares paid up to £5. No call of more than 10s. per share will be made at any one time, nor will any call be made at a less interval than three months.

The company being "limited," no shareholder, under any circumstances, can be liable for more than the amount of the shares for which he may subscribe.

Application for shares may be made to the directors, at the offices of the company accompanied by the banker's receipt. Prospectuses, together with reports and forms of application for shares, may be had at the offices of the company.

ROBERT LIBBY AND SON, MINE SHAREDEALERS, &c., CAMBRIDGE, CORNWALL.

Being established in the immediate neighbourhood of the mining districts, are in a position to give sound advice to capitalists as to the real value and merits of mines, many of which are now selling at very low prices, but would at once recommend the following for investment:—

East Lovell. Rosewarne United. South Crofty. Great North Laxey. New Rosewarne. Wheal Curtis.
East Carr Breas. East Rosewarne. New Rosewarne. Wheal Curtis.
Clifford Amalgamated.

MINING OFFICES, MANCHESTER.

THOMAS MOLYNBUX AND CO. MINE AGENTS, SHAREBROKERS, AND GENERAL COMMISSION AGENTS. Reliable information can be obtained as to purchase and sale of shares.
Office of the Hazel Grove Silver-Lead Mining Company (Limited), Flintshire. Prospectuses, reports, &c., of this valuable property may be had on application to No. 38 Princess-street, Manchester.

NORTH OF ENGLAND MINING AND ENGINEERING OFFICES, MANCHESTER.

MESSRS. HARVEY AND CO., MINING ENGINEERS, AGENTS, AND SHAREDEALERS, CLARENCE CHAMBERS, MANCHESTER. are at all times in a position to deal in all the market Dividend and Progressive Mine shares, and also to advise on all mining matters, being practically acquainted with the business, and having a daily communication from the mining districts of Devon and Cornwall.

Messrs. HARVEY and Co. publish a monthly "Mining Circular," containing a valuable summary of mining information. Forwarded gratis on application.
The Circular for February will contain special reports on South Wheal Bassett, East Wheal Bassett, and East Carr Breas.

Bankers: National Provincial, Manchester; and the Alliance, Lothbury, London.

MANCHESTER, AND WEST END OF LONDON.

MR. W. HANNAM, MINING, SLATE QUARRYING, INSURANCE, AND GENERAL SHAREBROKER. ROYAL INSURANCE BUILDINGS, KING STREET, MANCHESTER; and 31, REGENT STREET, LONDON, S.W.

INSTANTANEOUS COMMUNICATION WITH THE STOCK AND MINING EXCHANGES, avoiding the delay and annoyance of visiting the City to ascertain prices. A Monthly Investment Circular on application.

CAPT. C. WILLIAMS, TYN-Y-WERN, TALIESIN, via SHREWSBURY, has had upwards of 30 years' practical experience in mining, during which time he had the entire management of several English and Welsh mines. Residing in the centre of the CARDIGANSHIRE MINING DISTRICT, and in close proximity to those of MERIONETHSHIRE and MONTGOMERYSHIRE, he OFFERS HIS SERVICES TO SURVEY AND REPORT UPON ANY MINE.

CAPT. CHARLES WILLIAMS begs to inform all parties connected with mining that he is now in a position to UNDERTAKE CONTRACTS for the ERECTION OF ALL KINDS OF MACHINERY, LEVELLING OR MAKING WATER COURSES, AND RESERVOIRS. Also, for TUNNELLING AND SINKING ANY QUANTITY OF GROUND, having always ready a sufficient number of machinists and miners to complete any work he may undertake, with punctuality and dispatch. References given if required.
Tyn-y-Wern, Taliesin, via Shrewsbury, January 16, 1865.

BRITISH AND FOREIGN INVESTMENT.

MR. THOMAS SPARGO, STOCK, SHARE, AND MINING BROKER, 224, and 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C., TRANSACTS EVERY DESCRIPTION OF BUSINESS IN THE PURCHASE AND SALE OF SHARES IN BANKS, CANALS, MINES, RAILWAYS, BRIDGES, INSURANCES, AND ALL OTHER DESCRIPTIONS OF BRITISH AND FOREIGN STOCK.

Mr. SPARGO has for sale shares in English mines paying from 10 to 30 per cent. upon the present price, in monthly and quarterly dividends, as also a number of shares in good progressive mines, some of which he with confidence specially recommends to the public as sound investments.

Mr. SPARGO gives every information as to position and prospects of all mining undertakings, upon application, either personally or by letter, and is enabled, through his long experience, aided by his monthly visits to Cornwall, Devon, and Wales, to obtain the most reliable information as to the numerous mines in those districts. He will at all times give the best advice as to investment in mines, and, if necessary, inspect them himself; as in all cases he wishes to be guided by the intrinsic value of the property. Upon the receipt of £5, he will furnish a selected list of dividend and progressive companies.

Mr. SPARGO has published the following works, viz.:—

Statistics and Observations upon the Mines of Cornwall, 1859, price 2s. 6d.
Ditto ditto ditto ditto ditto ditto 1860, price 2s. 6d.
Ditto ditto ditto ditto ditto ditto 1862, price 5s.
Ditto ditto ditto ditto ditto ditto 1864, price 5s.

Physical, Geological, and Parish Map of Cornwall. Scale, three miles to an inch. Printed in three colours, showing distinctly the mining districts, the height of the hills, &c. Price 10s. 6d., on cloth and rollers.

Geological maps of the various mining districts, showing the boundary line of each mine, with the lodes, cross-courses, and elvan courses by which it is traversed. Price 2s. 6d. each.

A Model, or Relief, map of Cornwall (6 ft. 6 in. by 5 ft.), presenting the names of every town and village, as also every characteristic point of the county. Price £3 5s.

Dividends received, calls paid, and all orders promptly negotiated.

Commission 1 1/4 per cent.

Mr. SPARGO has 20 years' experience of mining, ten of which he was engaged in practical mining, and ten years he has transacted business in mining shares and stock, at 224 and 225, Gresham House, Old Broad-street, City, E.C.

Mr. SPARGO'S Statistics for 1865 will soon be published.

Bankers: Bank of London, and the Metropolitan and Provincial Bank (Limited).

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the WEST PAR CONSOLS MINING COMPANY.—TO BE SOLD, under the directions of the Registrar of this Court, BY PUBLIC AUCTION, at the WEST PAR CONSOLS MINES, in the parish of St. Blassy, on Tuesday, the 11th day of April next, at Eleven o'clock in the forenoon, together with in lots, all the INTEREST of the said company and of the MINE SETT or GRANT, by virtue of which the mining operations of the said company have been for some time past carried on, and the under-mentioned MINING MACHINERY, MATERIALS, and other effects, viz.:—

ONE 48 in. cylinder ROTARY ENGINE and WINDING GEAR.
TWO BOILERS, 11 tons each.
THREE WATER WHEELS—one 24 ft., with 6 heads of stamps attached; one 15 ft., with 8 heads of stamps attached; one 16 ft., with 6 heads of stamps attached, and a variety of pumps, together with the account-house and office furniture, and a variety of other articles and effects in general use in mines.

The mine, machinery, and materials may be inspected at any time prior to the sale, on application to Mr. VYSON, the officer of the Court in charge thereof.

BOLTON AND GYLLS HILL, 4, Elm-court, Temple, London
(Solicitors for the Petitioner).

HODGE, HOCKIN, AND MARRACK, Truro, Cornwall
(Agents of the said Solicitors).

Dated Registrar's Office, Truro, March 29, 1865.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the WOVWAS DOWNS MINING COMPANY.—TENDERS, stating the highest price which will be given for a 24 in. cylinder PUMPING ENGINE, 10 tons BOILER and fittings complete, 2 H pieces, 2 5 in. doopceers, 3 6 in. ditto, 2 6 in. matching, 3 5 in. working pieces, 19 9 in. pumps, 36 6 in. ditto, 3 5 in. windbore, 1 9 in. pole case, 1 9 in. plunger pole and stacking, 3 9 in. stuffing box and gland, 6 in. H piece, 7 in. pole case, bucket rods and flat-rods, 12 steel and iron sledges, 36 in. smiths' bellows, jumper, sampling and bruising iron, 14 shaft rolls, old whim and winch bibbles, wrought-iron bevel chains, beam and scales, 8 cast-iron plates for stamps, brass and copper bottom sieve, will be received at the Registrar's Office, Truro, until Friday, the 21st day of April last.

H. H. BAMFIELD, St. Ives
(Solicitor for the Petitioner).

HENRY SEWELL STOKES, Truro
(Agent of the said Solicitor).

Dated Registrar's Office, Truro, April 3, 1865.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the WHEAL PRUDENCE MINING COMPANY (LIMITED).—TO BE SOLD, BY PUBLIC AUCTION, at and upon the WHEAL PRUDENCE MINE, situate in the parish of ST. AGNES, in the county of CORNWALL, under the direction of the Registrar of the said Court, on Monday, the 1st day of May next, at Eleven o'clock in the forenoon, subject to such conditions as shall be then and there produced, and either together or in such lots as shall then be determined on, all the INTEREST of the said company and of the LEASES by virtue of which the mining operations of the said company have for some time been carried on, and the undermentioned MINING MACHINERY and MATERIALS, viz.:—

ONE 70 in. cylinder PUMPING ENGINE, with TWO BOILERS 25 tons.
ONE 24 in. cylinder WINDING ENGINE, with ONE BOILER and capstan.
2 9 ft. 16 in. windbores.
2 doopceers.
1 11 ft. 16 in. working barrel.
34 18 in. pumps.
60 fms. of 1 1/2 bucket rods.
1 16 in. H. piece.
2 pole cases, stuffing boxes, and glands.
1 plunger pole.
1 9 ft. 10 in. windbore.
1 10 in. H. piece.
1 10 in. top doopceer.
30 10 in. pumps.
1 9 in. pole.
600 ft. of main rods, main shears, with cap, pulleys, and brasses.

2 poppet heads, and connecting rods, which, tram wagons, tram rails, cat head rods, bar steel, pulley blocks, a brass bell, nails, new and old rope, new saw oil timber, 3 smiths' bellows, 1 pair of draw screws, connection in engine-shaft, brass and iron weights, 10 fms. of launders, saw-house tools and materials, whim bibbles, 200 fms. of iron stage ladders, 3 cisterns, dressing tables and materials, scales and beams, scrap iron, a quantity of smiths' and miners' tools, strapping plates and bolts, buckets, horse whim pulley, clacks and valves, mathematical instruments, superior account-house furniture, and other miscellaneous effects in general use in mines.

The mine and materials may be inspected at any time prior to the sale, on application to Mr. BLACKBURN, the officer in charge thereof, and further particulars, with conditions of the sale, may be had on application to

Messrs. BLACKBURN AND SON, Leeds
(Solicitors for the Petitioner); or
Mr. JOSEPH ROBERTS, Solicitor, Truro
(their Agent).

Dated Registrar's Office, Truro, April 5, 1865.

In Chancery.

IN Re the COMPANIES ACT, 1862, and Re the BRITISH COPPER COMPANY (LIMITED).—TO BE SOLD, BY PUBLIC TENDER, all that VALUABLE MINERAL PROPERTY, called the REDNAL COPPER MINE, situate at Eardiston, Salop, within two miles of the Rednal Station on the Shrewsbury and Chester Railway, together with the EXTENSIVE BUILDINGS, PLANT, STORES, and MATERIALS, by Mr. H. THREKELD EDWARDS (the Liquidator of the British Copper Company, Limited), at his office, No. 9, King's Arms-yard, Moorgate-street, London, on Monday, the 24th day of April, 1865, at One o'clock precisely.

The said property extends over about 115 acres, and about half a mile on the run of the lode. It is granted for the term of 21 years, from the 25th December, 1864, at a royalty of 1-15th, and a yearly rent of £100, to merge into royalty, and is determinable at twelve months' notice.

An engine-shaft has been sunk to the depth of 30 fms. There are also two other shafts, and levels are driven opening up a considerable extent of ground. There are upon the mine 100 tons (computed) of rich quality copper ore, ranging from 15 to 16 per cent. produce.

Convenient and substantial STONE-BUILT BUILDINGS have been erected in immediate contiguity to the turnpike road, comprising engine-house, fitted up with 12-horse ENGINE (complete), material house, blacksmith's shop, carpenter's shop, changing house, account house, and engine house for 80-horse power engine (unfinished).

The mine is situated in the sandstone formation; the lode is well defined, and about 4 ft. wide, with a leader, about 18 in. in width, of rich copper ore.

Being a pure carbonate of copper, similar to the ore of the Alderley Edge Mines, the copper is extracted from the ore, on the mine itself, by precipitation, at so moderate a cost that the before-named mine is paying 100 per cent. dividends, although their ore only averages a produce of 1 1/2 per cent.

The mine has been favourably reported on by Capt. Charles Thomas, of Dolcoath; Capt. Francis Phillips, late of Alderley Edge; and Capt. Pascoe, of the Mottram Mines, near Alkley. Copies of these reports can be obtained on application.

Upwards of £3500 have been laid out on the mine within the last two years, and it is believed that if £1000 is expended in building tanks for precipitating the copper, and extending the levels, large returns will be made by the proprietors.

Orders to inspect the above property can be obtained on application to the liquidator, at his offices, where particulars and conditions of sale can be had; as also of A. P. GREGG, Esq., Solicitor, 31, Threadneedle-street, London; at the Raven Hotel, Shrewsbury; the Railway Hotel, Rednal; and of Mr. CHARLES PRICE, at the mine.

CALVADNACK MINE, IN WENDRON.

ALL THE PUMPING, WINDING, AND STAMPING ENGINES, AND OTHER MACHINERY, PITWORK, TOOLS, TACKLE, MATERIALS, AND OTHER EFFECTS, FOR SALE, BY AUCTION.

MR. EDWARDS WILL SUBMIT FOR SALE, BY AUCTION, on Wednesday, the 19th day of April last, and following day, at CALVADNACK MINE, near PORKELLIS, in the parish of WENDRON, all the ENGINES, MACHINERY, MATERIALS, and Effects, comprising—

A very good 40-hp. PUMPING ENGINE, stroke 9 ft. within and 7 ft. without, with TWO BOILERS, 10 tons each.

A very excellent 22-hp. DOUBLE WHIM ENGINE, with fly-wheel and iron cage and BOILER, 8 tons.

A new and superior 20-hp. STAMPING ENGINE, with BOILER of 10 tons, fly-wheel and three iron axes, with 40 heads attached. [heads attached.]

A very complete WATER STAMPS, wheel 26 ft., 3 1/2 ft. breast, with iron axle and 12 Two 45-ft. WHEELS, 30 in. breast, with axles and 4 stamp-heads attached to each.

A very excellent 8-arm CAPSTAN, with oak axle; two very good SHEARS, with every requisite complete.

30 12 in. pumps, with H and top doopceers.

A 5 ft. 18 in. flat-bottom windbore.

A 14 in. pole, with stuffing-box and gland, complete.

A 15 in. pole case for same, 9 ft. long.

21 9 in. pumps, with H and top doopceers to match.

A 6 ft. 9 in. flat-bottom windbore.

A 9 in. pole, with stuffing-box and gland, complete.

A 10 in. pole case for same, 9 ft. long.

13 8 in. pumps, with 7 in. H and top doopceers.

A 7 in. pole, with stuffing-box and gland, complete.

2 smiths' bellows, crane, anvils and vice, and a large and general assortment of smiths' and miners' tools; a variety of plates and taps, with wrenches to fit; pumping machine, complete; kibble mould; 4 socket pieces for angle-bob; whim and winch bibbles; pulley stands; a quantity of iron flat-rods; 15 machine buddies; 80 machine frames; 25 hand frames, and 44 flat frames; round buddie, with 6-foot wheel for driving same; 13 stamp strips; 22 tin kibbles; dressing tools; burning oven; tin house; carpenter's benches, and a variety of carpenter's tools; grinding stones; a variety of new chain; sundry cordage; a large and good assortment of glands, bolts, and bars; new and old iron and steel; several wood houses and roofs; numerous lots of timber; the account-house furniture and utensils; and numerous other articles.

Also all the TIN SLIMES, HALVANS, and LEAVINGS.

The machinery and materials at Calvadnack are mostly new, exceedingly good, and in excellent condition, and the better part of the machinery usually covered over and laid open for inspection before the sale, to which merchants, mine agents, and others, are particularly invited.

The sale will commence on the 19th at eleven in the forenoon precisely, and not on the 18th, as stated in a former preliminary notice.

Dated April 1, 1865. Refreshments will be provided.

SPARE MINING MATERIALS FOR SALE.

MR. T. MILLS has been instructed by the committees of Wheal Truro, to OFFER BY PUBLIC COMPETITION, on Monday, the 10th of April next, at Eleven o'clock in the forenoon, at WHEAL FALMOUTH AND SPEER, the following, viz.:—

29 9 in. 19 in. pumps; 4 bottoms, with windbores, working barrels, and doopceers; 1 6 ft. 18 in. flat-bottom windbore, H piece, and top door; 1 13 ft. 18 in. ger pole, stuffing box and gland; 1 4 ft. 19 in. matching; 2 5 in. doopceers; 1 19 in. ditto, 1 2 ft. 8 in. 18 in. ditto; 2 pairs 5 in. strapping plates, 22 ft. long; 1 11 ft. 18 in. ditto; 24 fms. 3 1/4 in. bucket rods, with capstan joints, 22 ft. long; 1 11 ft. 18 in. eyes, 3 pair fagotted cheeks, 1 pair 19 in. yokes, 1 large shelled shawl, 2 pair prongs; 3 underground tram wagons; 3 15 in. pitch pine rods, 60 ft. long; 1 50 ft. long; 5 pairs rubbing blocks, 1 3 ft. 16 in. shaft roll, 3 18 in. long; several tons railroad iron and saddles, several tons staples and glands. The whole in good condition, and nearly equal to new.

Also, on the same day, at Three o'clock in the afternoon, at WHEAL FALMOUTH, the following, viz.:—

A 50 in. cylinder ENGINE, 10 ft. stroke, equal beam, with top piece of rod; 10 ton BOILER, with fittings complete; 60 ft. shears, with shawl, shawl, and brasses complete; 7 arm oak axle capstan, with iron centre piece and cap; 2 10 in. whims, 200 fms. 7-16 in. horse whim chain, 80 fms. 3/4 in. capstan chain; 2 12 in. plunger poles; 2 12 ft. 11 in. ditto; cases, with stuffing boxes and glands; 2 12 in. 20 in. doopceers, 2 10 in. windbores, 44 9 ft. 11 in. pumps, 3 12 ft. 18 in. 13 ft. 18 in. doopceers, 2 10 in. windbores, 2 10 in. windbores, 4 bucket prongs and clacks, and 13 14 ton 14 ft. rod plates.

Further particulars may be obtained of Mr. T. MILLS, the auctioneer, Redruth, or of agents on the mine.—Dated Truro, March 29, 1865.

NORTH GREAT WORK TIN MINE, IN THE PARISHES OF BREAGE AND GERMOE, IN THE COUNTY OF CORNWALL.

MR. V. BUCKLAND is instructed by the Official Liquidator of the NORTH GREAT WORK TIN MINE, to OFFER BY PUBLIC AUCTION, on Wednesday, the 13th day of April, the GOODWILL of the LEASE, PLANT, and MATERIALS of the NORTH GREAT WORK TIN MINE, from which a large quantity of ore has been recently raised. The mine is traversed by several important and paying lodes, with a moderate outlay may be made a valuable property.

Particulars and conditions of sale may be had in a few days of H. W. EDWARDS, Esq., Liquidator, 22, Lord-street, Liverpool; of Capt. POPE, at the mine; of J. T. V. Esq., Redruth, near Camborne; and of the Auctioneer, 88 and 89, Cannon-street, West, City.

PRELIMINARY NOTICE.

IMPORTANT SALE OF VALUABLE LEAD MINE AND MINING MATERIALS.

MR. DAVID JONES has received instructions to SELL BY AUCTION, on the mine, early in the month of May, all the VALUABLE MINING MACHINERY, PLANT, and MATERIALS of the RHOSWYDOL AND BACHIGWYLL MINES, situate in the parish of PENEGOE, in the county of MONTGOMERY, and within about six miles from Machynieth Railway station, including a first-class cylinder CONDENSING ENGINE, PUMPING and DRAWING MACHINERY, a 30 ft. WATER WHEEL, CRUSHING MILL, circular, flat, and the buddies, &c., all in first-rate working condition, with all the usual appendages of a productive mine in full work.

The first lot will be the steam-engine, and the purchaser or purchasers will have the option (subject to the approval of the manager) of having a lease of the mine upon a royalty of 1-15th, with the usual conditions.

For further particulars, or to treat for the whole by private contract, apply to Messrs. HADLEY, Esq., 20, St. Helen's-place, Bishopsgate-street, London; or to the Auctioneer, Machynieth.—Dated March 31, 1865.

GLAMORGANSHIRE.

WORKING BITUMINOUS COLLIERIES, NEAR BRITTONFERRY, FOR SALE.

TO BE SOLD, BY AUCTION, at the Castle Hotel, North, on Wednesday, the 19th of April, 1865, at Three o'clock in the afternoon, subject to conditions to be then and there produced, the SWAN AND PARK COLLIERIES, and the MINERALS UNDER UPWARDS OF FOUR HUNDRED ACRES OF LAND situate in the parish of Baglan, near Brittonferry, held for terms of years (determined by lease) of which 35 years and 55 years respectively are unexpired, at making sleeping rents and royalties, together with the PLANT and MACHINERY to the collieries respectively belonging.

The collieries are close to the harbour and docks of Brittonferry, where the coal is shipped, and the South Wales Railway runs within a few yards of the pits.

Further particulars may be obtained of Mr. THOS. JENKINS, iron merchant, Brittonferry; and at the offices of Mr. RANDALL, solicitor, North, where the leases may be inspected.

HOLMBUSH MINES—SALE OF ENGINES, &c.

TO BE SOLD, BY PRIVATE CONTRACT, ONE 60 in. cylinder PUMPING ENGINE, 11 ft. stroke in cylinder, 9 ft. in shaft, 8 in. stroke (brass lined), with THREE BOILERS about 12 tons each. ONE 18 in. WINDING ENGINE, 3 1/2 ft. stroke, with cage, and 8 tons FLYER. ONE 16 in. WINDING ENGINE, with oscillating beam, cage, and BOILER 6 tons. For further information apply to Mr. WARD, 9, Broad-street-buildings, London; Capt. Jones, West Coast Mine, Liskeard; or to Mr. THOMAS PRYOR, Clarendon, Redruth.

CARADON VALE MINE.

SALE OF ENGINE AND MATERIALS.—TO BE SOLD, BY PRIVATE CONTRACT, ONE 54 in. cylinder PUMPING ENGINE (by Ward 9 ft. stroke, equal beam, with 12 tons BOILER (nearly new); 1 8 arm capstan and shears, 60 ft. high, with 2 4 ft. shawls, 25 fms. of 8 in. pumps, plunger pole and bottom, 30 fms. 12 in. pumps, plunger pole and bottom; 20 fms. 11 in. pumps, 11 in. main rod, 1 balance bob, 100 fms. 12 in. capstan rope, 2 horse whims, 1 whim rope, 280 fms.; 120 fms. of 2 1/2 in. round iron rods; 120 fms. of 30 in. pitch stands, complete; 30 f

NICHOLLS, WILLIAMS, AND CO., ENGINEERS,
REDFORD IRONWORKS, TAVISTOCK.
MANUFACTURERS OF STEAM ENGINES, EVERY DESCRIPTION, made on the BEST AND NEWEST PRINCIPLES. We beg more especially to call the attention of the public to the manufacture of our BOILERS, which have been tested by most of our leading engineers. PUMP WORK CASTINGS OF EVERY DESCRIPTION, both of brass and iron. HAMMERED IRON AND HEAVY SHAFTS OF ANY SIZE. CHAINS made of the best iron, and warranted. RAILWAY WORK OF EVERY DESCRIPTION.
ALL ORDERS FOR ABROAD RECEIVE THEIR BEST ATTENTION. NICHOLLS, WILLIAMS, AND CO. have had 30 years' experience in supplying machinery to foreign colonies, and selecting experienced workmen to erect the same, where required.
Messrs. NICHOLLS, WILLIAMS, AND CO. have always a LARGE STOCK OF SECOND-HAND MINE MATERIALS in stock, and at moderate prices.

HENRY AND CO., RAILWAY AND GENERAL IRON MERCHANTS.
CONTRACTORS FOR ALL DESCRIPTIONS OF RAILWAY PLANT AND STORES.
AGENTS FOR STEAM COAL.
105, GRESHAM HOUSE, OLD BROAD STREET, CITY, LONDON.

PATENT FLEXIBLE TUBING,
AND BRATTICE CLOTH FOR MINES,
MANUFACTURED BY
ELLIS LEVER,
PATENTEE,
WEST GORTON WORKS, MANCHESTER.

TAVISTOCK IRONWORKS AND STEEL ORDNANCE COMPANY (LIMITED).
(LATE GILL AND CO.)
ENGINEERS, IRON AND BRASS FOUNDERS,
MANUFACTURERS OF
STEAM ENGINES, BOILERS, AND MACHINERY OF ALL KINDS.
CHAINS, SHOVELS, EDGE TOOLS, AND EVERY DESCRIPTION OF CAST AND HAMMERED IRON FOR MINING, MANUFACTURING, RAILWAY, OR AGRICULTURAL PURPOSES.
Machinery sent to all parts of the world.
Foreign mining companies supplied on liberal terms.

RAILWAY CARRIAGE COMPANY (LIMITED),
ESTABLISHED 1847.
OLDBURY WORKS, NEAR BIRMINGHAM.
MANUFACTURERS OF RAILWAY CARRIAGES AND WAGONS, AND EVERY DESCRIPTION OF IRONWORK.
Passenger carriages and wagons built, either for cash or for payment over a period of years.
RAILWAY WAGONS FOR HIRE.
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LONDON OFFICES, 8, STOREY'S GATE, GREAT GEORGE STREET, WESTMINSTER.

THE BEVERLEY IRON AND WAGON COMPANY (LIMITED).
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THE BIRMINGHAM WAGON COMPANY (LIMITED).
MANUFACTURE RAILWAY WAGONS OF EVERY DESCRIPTION, for HIRE AND SALE, by immediate or deferred payments. They have also wagons for hire capable of carrying 6, 8, and 10 tons, part of which are constructed specially for shipping purposes. Wagons in working order maintained by contract.
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THE MIDLAND WAGON COMPANY.
ESTABLISHED 1853.
RAILWAY WAGONS.—This company having from SIX TO SEVEN THOUSAND COAL, CLINK, IRONSTONE, AND RAILWAY WAGONS, have generally a number to LET for one or more years, including repairs, at Rugby, Peterborough, Shrewsbury, Chester, Carnforth, Stoke-on-Trent, Staveley, Drottwich, Worcester, Gloucester, Reading, Hereford, Newport (Mon.), Cardiff, and Birmingham.
They also contract for wagon repairs at any of the above stations.
The company build every description of railway wagons and carriages for cash or by deferred payments extending over three, five, seven, or ten years.
Midland Works, Birmingham.
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LOCOMOTIVE, PORTABLE, AND FIXED HORIZONTAL STEAM ENGINES, all sizes up to 24 in. cylinder, PUMPING AND WINDING GEAR, MORTAR MILLS, SAW BENCHES, PORTABLE CRANES, &c. FOR SALE OR HIRE.
ISAAC W. BOULTON, ASHTON-UNDER-LYNE.

HORIZONTAL ENGINES FOR SALE, at very low prices:—
One 12 in. cylinder, 24 in. stroke; one 12 in. cylinder, 36 in. stroke; and two 14 in. cylinders 24 in. stroke. All ready for delivery, and may be had with or without fly-wheels.—Apply to Messrs. E. PAGE AND CO., Laurence Pountney-place, Laurence Pountney-hill, Cannon-street E.C.

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for the past 14 years professional assayer to the Chester Goldsmiths' Company, UNDERTAKES THE ASSAYING AND ANALYSIS OF EVERY DESCRIPTION OF MINERAL.—Assay Office, Chester.

BASTIER'S PATENT CHAIN PUMP
APPARATUS FOR RAISING WATER ECONOMICALLY, ESPECIALLY APPLICABLE TO ALL KINDS OF MINES, DRAINAGE, WELLS, MARINE, &c.

J. U. BASTIER begs to call the attention of proprietors of mines, engineers, architects, and the public in general, to his new pump, the cheapest and most efficient ever introduced to public notice. The principle of this new pump is simple and effective, and its action is so arranged that accidental breakage is impossible. It occupies less space than any other kind of pump in use, does not interfere with the working of the shafts and unites lightness with a degree of durability almost imperishable. By means of this hydraulic machine water can be raised economically from wells of any depth; it can be worked either by steam-engine or any other motive power, by quick or slow motion. The following statement presents some of the results obtained by this hydraulic machine as daily demonstrated by use:—
1.—It utilizes from 90 to 92 per cent. of the motive power.
2.—Its price and expense of installation is 75 per cent. less than the usual pumps employed for mining purposes.
3.—It occupies a very small space.
4.—It raises water from any depth with the same facility and economy.
5.—It raises with the water, and without the slightest injury to the apparatus, sand, mud, wood, stones, and every object of a smaller diameter than its tube.
6.—It is easily removed, and requires no cleaning or attention.
BASTIER'S PATENT CHAIN-PUMP may be seen daily in operation at Messrs. CARLISLE BARBER AND CO.'S Patent Ropes, Marsh Works, Bromley-by-Bow, London, E. Cards of admission to be had on application to the inventor and patentee, Mr. J. U. BASTIER, E.C. 12, Gower-street North, London.

J. U. BASTIER, sole manufacturer, will CONTRACT TO ERECT HIS PATENT PUMP AT HIS OWN EXPENSE, and will GUARANTEE IT FOR ONE YEAR, or will GRANT LICENSES to manufacturers, mining proprietors, and others, for the USE OF HIS INVENTION.
OFFICES, 12, GOWER STREET NORTH, LONDON.
London, March 21, 1865. Hours from Ten till Four. J. U. BASTIER C.E.

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CONVERSATIONS ON MINES, &c., BETWEEN "A FATHER AND SON."
Containing plans on ventilation and working on coal, dialling, planning, and taking the dip and rise of the mine illustrated.
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Address Mr. J. J. CARRKILL, Cropper's-hill, St. Helen's; or the author, 73, Peter-street, St. Helen's.

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SLATE QUARRIES AS AN INVESTMENT,
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With corrections, and many additions.
By JOHN BOWER, Esq., D.C.L., Barrister-at-Law, Managing Director of the Snowdon Hall Quarries Company (Limited).
London: Published at the MINING JOURNAL Office, 26, Fleet-street, E.C., and sold by all booksellers and newsmen.

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Published every Saturday, price 2d., or quarterly 2s. 3d.
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Published every morning, price 1d.
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THE STOCKTON AND HARTLEPOOL MERCURY and the Coal, Iron, and Iron Ship-building Trades in the extensive Mining and Maritime Districts of South Durham and Cleveland, which it has been closely identified since its origin. The "Mercury" was for years the only newspaper published in South Durham and Cleveland, and is yet the only one published more than once a week. Advertisements to be forwarded to the publisher, Mr. JOHN H. BAX, Southgate, Hartlepool.

THE STOCKTON AND HARTLEPOOL MERCURY is published every Saturday, price 2d., or quarterly 2s. 3d.
Orms, 42, Grey-street, Newcastle-upon-Tyne; 50, Howard-street, North Shields; 155, High-street, Sunderland.

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International Exhibition, 1862—Prize Medal.



JAMES RUSSELL AND SONS
(the original patentees and first makers of wrought-iron tubes) of the CROWN PATENT TUBE WORKS, WEDNESBURY, STAFFORDSHIRE, have been AWARDED A PRIZE MEDAL for the "good work" displayed in their wrought-iron tubes and fittings.
Warehouse, 81, Upper Ground-street, London W.C.

BICKFORD'S PATENT SAFETY-FUSE OBTAINED THE PRIZE MEDALS at the ROYAL EXHIBITION of 1851, at the INTERNATIONAL EXHIBITION of 1862, in London, and at the IMPERIAL EXPOSITION held in Paris, in 1855.



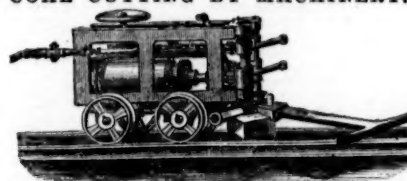
BICKFORD, SMITH, AND CO.
TUCKINGMILL, CORNWALL, MANUFACTURERS OF PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:—
EVERY COIL OF FUSE MANUFACTURED BY THEM HAS TWO SEPARATE THREADS PASSING THROUGH THE COLUMN OF GUNPOWDER, AND BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE THREADS AS THEIR TRADE MARK.

Prize Medals—International Exhibition, Class 1 and 2.

PATENT PLUMBAGO CRUCIBLES.—The CRUCIBLES manufactured by the PATENT PLUMBAGO CRUCIBLE COMPANY are the ONLY KIND for which a MEDAL has been AWARDED, and are now used exclusively by the English, Australian, and Indian Mints; the French, Russian, and other Continental Mints; the Royal Arsenal of Woolwich, Brest, and Toulon, &c.; and have been adopted by most of the large ENGINEERS, BRASSFOUNDERS, and REFINERS in this country and abroad. The GREAT SUPERIORITY of these melting pots consists in their capability of melting on an average 40 pourings of the most difficult metals, and a still greater number of those of an ordinary character, some of them having actually reached the EXTRAORDINARY NUMBER of 96 meltings. They are unaffected by change of temperature, never crack, and become heated much more rapidly than any other crucibles. In consequence of their great durability, the saving of waste is also very considerable.

The company have recently introduced CRUCIBLES SPECIALLY ADAPTED for the following purposes, viz.:—MALLEABLE IRON MELTING, the average working of which has proved to be about seven days; STEEL MELTING, which are found to save nearly 1 1/2 ton of fuel to every ton of steel fused; and for ZINC MELTING, lasting much longer than the ordinary iron pots, and saving the great loss which arises from mixture with iron.
The Patent Plumbago Crucible Company likewise manufacture and import Clay Crucibles, Muffles, Portable Furnaces, &c. Stove Backs, all descriptions of fire-brick goods, and every requisite for the Assayer and Dentist.
For lists, testimonials, &c., apply to the Patent Plumbago Crucible Company, Battersea Works, London, S.W.

COAL CUTTING BY MACHINERY.



MESSRS. RIDLEY AND CO. have, by recently PATENTED IMPROVEMENTS, COMPLETED their TRUNK COAL CUTTING MACHINE, WORKED BY COMPRESSED AIR, and are NOW PREPARED TO NEGOTIATE for the USE, and to SUPPLY MACHINES, which will be found to COMBINE SIMPLICITY OF CONSTRUCTION WITH PORTABILITY AND ECONOMY IN WORKING. By the use of these machines a CONSIDERABLE SAVING OF COAL IS EFFECTED, and the COST OF LABOUR MUCH REDUCED. Each machine will be guaranteed as to its capabilities, &c.
All applications to be made to Messrs. RIDLEY AND CO., No. 11, South-street, Finsbury, London, E.C.; or Mr. PERCY BANKART, agent, 9, Clement's-lane, E.C.
* COLLIERY PROPRIETORS are CAUTIONED AGAINST PURCHASING or USING MACHINES, the construction of which will constitute an INFRINGEMENT of the ABOVE PATENT.

COAL CUTTING MACHINERY.—The WEST ARDSLEY COMPANY having, by recently patented improvements, perfected their coal cutting machinery, worked by compressed air, are NOW READY to MAKE CONTRACTS for the CONSTRUCTION and USE of their MACHINES. The results of twelve months' experience in the working of these machines, by the West Ardsley Company, have proved most satisfactory, their use being found to CHEAPEN the COST and IMPROVE the average SIZE of the COAL, to LIGHTEN the LABOUR, and also to MODIFY the SANITARY CONDITION of the MINE. All communications to be made to Messrs. FIRTH, DONTHORPE, and BOWER, No. 8, Britannia-street, Leeds.

NOTICE.—The WEST ARDSLEY COMPANY, having reason to believe that their patents are being infringed upon, hereby give notice that they will TAKE LEGAL PROCEEDINGS AGAINST ALL PARTIES who may MAKE FOR SALE, or USE ANY MACHINERY in the construction of which any such INFRINGEMENT is MADE.

BLASTING.
AS NOW ADAPTED BY LENK'S PROCESS
IS THE CHEAPEST AND SAFEST EXPLOSIVE,
AND FREE FROM SMOKE.
Prices and directions for use on application to the Manufacturers,
THOMAS PRENTICE AND CO.,
STOWMARKET, SUFFOLK.

SAFETY FUSE.—Messrs. WILLIAM BRUNTON AND CO., PENHALICK, POOL, near CAMBORNE, CORNWALL, and BRYMBO, near WREXHAM, MANUFACTURERS OF FUSE, of every size and length, as exhibited in the Great Exhibition of 1851, and supplied to the Royal Arsenal at Woolwich, the Arctic Expedition, and every part of the globe.
For the convenience of their customers and others in the North, W. BRUNTON and Co. have recently erected a branch manufactory at Brymbo, near Wrexham, where, as at Cornwall, they are at all times PREPARED to EXECUTE UNLIMITED ORDERS for SUPPLYING FUSE upon warrant that it will prove equal to, if not better than any to be procured elsewhere.

CHARLES DAVEY AND CO.
SAFETY FUSE MANUFACTURERS,
ST. HELEN'S JUNCTION, LANCASHIRE.

THE CLUTCH SAFETY CAGE, IMPROVED.—The improvement consists in its having only a single spring, which is strong enough to take the lift of the loaded cage; to overhaul the broken rope, however distant the fracture may be; and yet so conditioned that it cannot bring the clutches into play till the rope is broken. It is an ordinary carriage spring, and can be replaced, when needed, at any coach-work. Makers of cages, or inventors, who may wish to combine the safety clutch with their own improvements are respectfully informed that liberty to do so will be granted to them on easy terms.—Apply to the patentee, ROBERT ATTUN 3, Fettes-row, Edinburgh.

A GREAT DEAL OF INFERIOR SPIEGELEISEN having been SOLD IN ENGLAND, to the PREJUDICE OF THE GENUINE ARTICLE, I beg to OFFER BEST QUALITY OF SPIEGEL IRON, ex steamer in Hull, at £6 10s. per ton. SECOND QUALITY, £5 5s. Also, PULLED STEEL IN BARS, ordinary sizes, £18 per ton. Apply to JULIUS GOLDSTEIN, HAMBURG.
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AGENTS, MESSRS. CUTHBERTSON AND CO., 80, CORNHILL, LONDON.

HYDRAULIC LIME AND ROMAN CEMENT, MANUFACTURED BY LLOYD JONES AND CO., HALKIN WORKS, HOLYWELL, FLINTSHIRE. The Halkin Hydraulic Lime is the same as used in the construction of the Liverpool Dock, Manchester, and various Waterworks, Collieries, and Mines throughout the country, being so long celebrated for its strong cementitious and connecting powers for masonry in water. Can be supplied by rail or water to any part of the Kingdom, either in lump (loose) or ground, in barrels or bags. The Limestone can be had in full cargoes, also their cement in barrels, which is of a very superior quality, and warranted pure. Orders to be accompanied by a banker's reference.—Apply at the Works, or to E. and W. AARON, agents, 66, South John-street, Liverpool.

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CHAPEL STREET, LIVERPOOL,
MANUFACTURERS OF FLAT AND ROUND HEMP AND IRON AND STEEL WIRE ROPES for MINING, RAILWAY, AND SHIPPING PURPOSES.
MANILLA ROPE OF SUPERIOR QUALITY, FIFTY PER CENT. STRONGER, AND THIRTY PER CENT. CHEAPER THAN RUSSIAN HEMP ROPE.
WIRE ROPE OF FIRST QUALITY WIRE, and the HIGHEST STANDARD OF STRENGTH.

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CREASE'S PNEUMATIC TUNNELLING ENGINE, for SUPERSEDING the SLOW and EXPENSIVE USE of MANUAL LABOUR in SINKING SHAFTS, DRIVING LEVELS, TUNNELLING, &c., is guaranteed to drive through any rock of average hardness at a minimum rate of 1 in. per diem, and to sink shafts at the rate of 3 fms. in three days.
Mr. CREASE will undertake contracts for sinking shafts, driving levels, &c., at an enormous reduction of time and great saving in cost.
Applications to be addressed (for the present) to the patentee, Mr. E. S. CREASE, Tavistock, Devon.

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FALCON RAILWAY PLANT WORKS,
LOUGHBOROUGH,
ENGINEERS, IRONFOUNDERS, BOILER MAKERS, and MANUFACTURERS
EVERY DESCRIPTION OF RAILWAY MACHINERY.

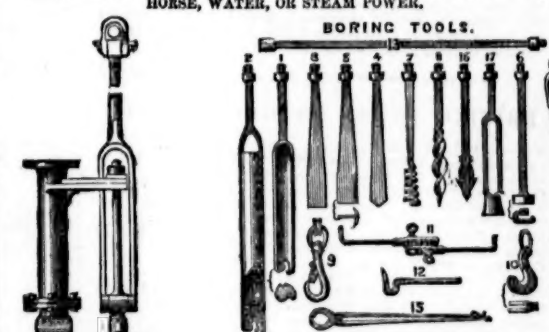


LOCOMOTIVE ENGINES, for MINERAL and CONTRACTORS' RAILWAYS, of the best materials and workmanship, always in progress. These engines are designed to supply the chief requisites in tank locomotives—viz., reduction of the overhanging weight at the fire-box end, proper distribution of the weight upon the wheels, and keeping the centre of gravity low. These are accomplished by making the fire-box and its shell on an improved principle, which enables the driving axle to be placed further back, without interfering with the eccentrics and valve gear, which are of the usual simple description.

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MANUFACTURERS OF
CAST STEEL FOR PUNCHES, TAPS, and DIES,
TURNING TOOLS, CHISELS, &c.
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EDGE TOOLS MARKED
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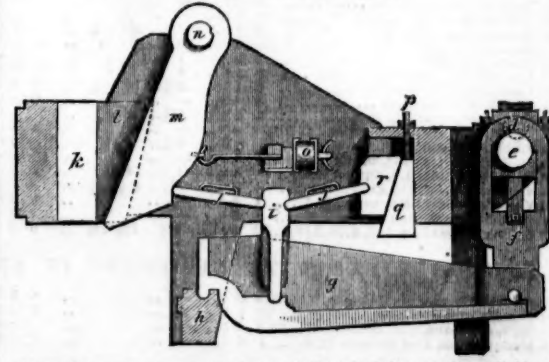
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Where the largest stock in the world may be selected from.

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WHITEFRIARS STREET, LONDON, E.C.,
HYDRAULIC AND GENERAL ENGINEERS,
MANUFACTURERS OF PUMPS OF EVERY DESCRIPTION FOR HAND, HORSE, WATER, OR STEAM POWER.



Boring Tools of every description, for Testing Ground and for Artesian Wells.
Improved Double-action Pumps.
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BLAKE'S PATENT STONE BREAKER,
OR ORE CRUSHING MACHINE,
FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND.



It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States and England.
The above section illustrates Blake's Stone Breaker, just as made the last five years and is fully protected in every part by patents.
Extract from Specification:—A short but powerful vibration is imparted to one or both of the jaws by any convenient arrangement, and combination of powerful levers, worked by a crank or eccentric on the main shaft.
LEGAL PROCEEDINGS will be taken at once against any person or persons found making, using, or vending any machine, the construction of which will constitute an infringement on the above patent. Read extracts of testimonials:—
Aikali Works, near Wednesbury.—I at first thought the outlay too much for so simple an article, but now think it money well spent.
Wm. DANIEL.
Welsh Gold Mining Company, Dolgelly.—The stone breaker does its work admirably, crushing the hardest stones and quartz.
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General Fremont's Mines, California.—The 15 by 7 in. machine effects a saving of the labour of about 30 men, or \$75 per day. The high estimation in which we hold your invention is shown by the fact that Mr. Park has just ordered a third machine for this estate.
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1000	Alderley Edge (cop.), Cheshire [L. 10]	0 0	—	—	11 0 0	15 Oct. 1884
4000	Bedford United (copper), Tavistock	2 6	—	—	13 11 0	2 Oct. 1884
1248	Bocawell (tin, copper), St. Just	6 10	—	—	1 5 0	3 May 1884
300	Botalack (tin, copper), St. Just	91 8	—	—	477 15 0	3 Oct. 1884
1800	Brixham Hematite Iron [L. 43]	4 7	—	—	0 0 0	6 Nov. 1884
1000	Bronfeyd (lead), Cardigan [L. 45]	12 0	—	—	5 10 0	15 Jan. 1885
1200	Bryn Gwyn (lead), Mold, [L.]	0 0	—	—	—	—
916	Cargill (copper-lead), Newlyn	16 7	—	—	10 0 0	15 Mar. 1885
1900	Carn Brea (copper), Illogan	15 0	—	—	280 10 0	2 Feb. 1885
2800	Clifford Amalgamated (cop.), Gwent	30 0	—	—	34 3 0	12 Feb. 1885
2000	Copper Mines of England	25 0	—	—	7 1/2 per cent.	—
4000	Ditto (stock)	100 0	—	—	1 per cent.	—
867	Cwm Erbin (lead), Cardiganshire [L.]	7 10	—	—	15 18 0	1 0 Mar. 1885
128	Cwmystwith (lead), Cardiganshire	60 0	—	—	275 10 0	4 Jan. 1885
2800	Darwent Mines (all-lead), Durham	300 0	—	—	152 0 0	5 Jan. 1885
24	Devon Gt. Con. (cop.), Tavistock [L.]	1 0	—	—	962 0 0	9 Mar. 1885
858	Dolcoath (copper), Camborne	128 17	—	—	786 10 0	5 Feb. 1885
312	East Bassett (cop.), Redruth [S.E.]	25 10	—	—	126 0 0	1 0 Nov. 1884
6144	East Caradon (copper), St. Cleer [S.E.]	2 14	—	—	12 12 0	10 Jan. 1885
200	East Doreen (lead), Cardiganshire	32 0	—	—	102 10 0	2 0 Feb. 1885
128	East Pool (tin, copper), Pool, Illogan	24 0	—	—	369 10 0	4 Jan. 1885
5000	East Rosewarne (cop., tin), Gwiltar	2 15	—	—	0 4 0	2 Feb. 1885
1906	East Wheal Lovell (tin), Wendron	12 10	—	—	1 10 0	16 May 1884
2800	Foxdale (lead) Isle of Man [L.]	25 0	—	—	66 0 0	1 0 Mar. 1885
8000	Frank Mills (lead), Christow	3 18	—	—	2 0 0	6 Feb. 1885
15000	Great Laxey (lead), Isle of Man [L.]	4 0	—	—	2 1 0	10 Mar. 1885
9008	Great Wh. Vor (tin, cop.), Helston [S.E.]	40 0	—	—	6 2 0	15 Mar. 1885
119	Great Work (tin), Gernoe	100 0	—	—	15 0 0	8 Aug. 1884
1024	Harrold (tin), Llanidloes [S.E.]	8 10	—	—	31 10 0	15 Feb. 1885
400	Liburnia (copper), Cardiganshire, Wales	18 0	—	—	480 10 0	2 0 Jan. 1885
2000	Mace-y-Sain (lead) [L.]	20 0	—	—	1 0 0	1 Oct. 1884
9000	Marke Valley (copper), Cardigan	4 10	—	—	2 18 0	2 Jan. 1885
3000	Minera Boundary (lead), Wrexham [L.]	1 0	—	—	0 6 0	2 Mar. 1885
1800	Minera Mining Co. (L.) [L.]	26 0	—	—	169 18 0	7 Feb. 1885
20000	Mineral Co. of Ireland (cop., lead, coal)	7 0	—	—	16 19 7	12 Jan. 1884
40000	Mynydd (iron ore) [L.] [S.E.]	2 10	—	—	0 4 0	2 Apr. 1884
200	Nanty Mines (lead), Montgomery	20 0	—	—	7 0 0	1 0 June 1884
6000	New Birch Tor and Vitrifer Co. (tin)	1 8	—	—	0 11 0	1 6 Oct. 1884
8936	North Trekerby (copper), St. Agnes	1 0	—	—	0 18 0	2 Feb. 1885
200	Parys Mines (copper), Anglesey [S.E.]	2 10	—	—	425 0 0	6 Nov. 1884
1123	Providence (tin), Ury Lelant [S.E.]	10 6	—	—	76 5 0	1 0 Feb. 1885
30	Silver Lake Mining Company	280 0	—	—	—	—
512	South Caradon (cop.), St. Cleer [S.E.]	1 0	—	—	475 10 0	8 Dec. 1884
4000	St. Day United (tin), Redruth	14 0	—	—	0 5 0	5 Mar. 1884
940	St. Ives Consols (tin), St. Ives	8 0	—	—	490 10 0	10 May 1884
6000	Tincroft (tin), Pool, Illogan [S.E.]	9 0	—	—	16 11 0	10 Mar. 1885
2000	West Bassett (copper), Illogan [S.E.]	1 10	—	—	26 9 0	6 Mar. 1885
8000	W. Chiverton (L.), Penryn [S.E.]	—	—	—	4 10 0	15 Feb. 1885
256	West Damsel (copper), Gwennap	34 10	—	—	53 10 0	1 0 Nov. 1884
400	W. H. Seton (cop.), Camborne [S.E.]	7 10	—	—	425 0 0	6 Nov. 1884
612	Wheal Bassett (copper), Illogan [S.E.]	2 6	—	—	608 0 0	1 10 Apr. 1885
512	Wheal Jane (silver-lead), Kea	3 10	—	—	15 0 0	10 Aug. 1884
4295	Wheal Kitty (tin), St. Agnes	5 4	—	—	2 6 0	3 Feb. 1885
1024	Wheal Lelant (tin), Ury Lelant [S.E.]	2 0	—	—	10 2 0	7 Feb. 1884
1024	W. Mary Ann (L.), Menheniot [S.E.]	8 0	—	—	69 17 6	10 Mar. 1884
100	Wheal Mary (tin), Lelant	36 2	—	—	288 5 0	4 Mar. 1884
80	Wheal Owles (tin), St. Just, Cornwall	70 0	—	—	243 8 0	5 May 1884
596	Wheal Seton (tin, copper), Camborne	58 10	—	—	191 15 0	4 Feb. 1885
700	Wheal Trawan (all-ld.), Liskeard [S.E.]	8 17	—	—	51 10 0	12 Mar. 1884
1040	Wicklow (copper) [L.]	2 10	—	—	14 17 0	6 Oct. 1884

* Dividends paid every two months. † Dividends paid every three months.

BRITISH MINES WITH DIVIDENDS IN ABEYANCE.

340	Bocawell (tin), St. Just	20 10 0	—	—	86 10 0	1 0 Mar. 1882
3600	Chiverton (lead), Penryn [S.E.]	6 0	—	—	53 10 0	2 0 June 1882
256	Condurow (cop.), Camborne	72 10 0	—	—	1 7 0	7 May 1882
4000	Cook's Kitchen (copper), Illogan	18 5 0	—	—	2 7 0	—
1024	Copper Hill (copper), Redruth	12 0 0	—	—	2 7 0	—
1058	Cradock Moor (copper), St. Cleer	8 0 0	—	—	7 12 0	4 Oct. 1882
4076	Devon and Cornwall (cop.), Tavistock	6 8 3	—	—	0 10 0	2 Feb. 1882
12800	Drake Walls (tin, copper), Calstock	2 1 0	—	—	0 18 0	1 6 Mar. 1882
8000	Duffryn (lead), Wales	12 6 0	—	—	0 17 6	2 Jan. 1882
940	Fowey Consols (copper), Tywardreath	4 7 6	—	—	41 9 3	2 June 1880
8000	Great South Tolgus (copper), Redruth	0 14 6	—	—	7 18 6	5 Dec. 1881
10240	Gunnislake (Clitters' Adit) (copper)	0 2 0	—	—	0 3 0	1 6 Mar. 1882
1400	Lavender (copper), St. Agnes	2 10 0	—	—	9 15 0	1 0 June 1882
440	Mount Pleasant (lead), Mold	4 0 0	—	—	13 18 1	7 Feb. 1882
5000	Oradell (lead), Flintshire	0 8 0	—	—	10 4 0	8 Mar. 1882
6400	Par Consols (cop.), St. Blazey [S.E.]	1 2 6	—	—	36 19 0	2 Mar. 1882
1773	Pelberron (tin), St. Agnes	15 0 0	—	—	7 19 6	10 Nov. 1882
612	Pelberron (tin), St. Agnes	8 0 0	—	—	1 0 0	1 0 July 1882
8000	Rosewell Hill and Ransom United	3 1 0	—	—	0 10 0	1 6 June 1882
8000	South Exmouth (lead), Christow	2 2 0	—	—	0 5 0	5 Dec. 1882
512	South Tolgus (cop.), Redruth	8 0 0	—	—	74 10 0	1 0 May 1882
498	S. W. Frances (cop.), Illogan [S.E.]	18 19 2	—	—	370 18 6	1 0 Nov. 1882
280	Spawne Moor (tin, copper), St. Just	17 0 0	—	—	9 15 0	1 0 June 1882
372	Trevelyan Consols (tin), St. Ives	14 10 0	—	—	0 0 0	10 Sept. 1880
1000	Trumpet Consols (tin), near Helston	11 10 0	—	—	11 0 0	2 Mar. 1882
4200	Vigra and Clogau (copper) [L. 45]	5 0 0	—	—	6 2 0	10 Mar. 1884
1024	Wendron Consols (tin), Wendron	20 13 0	—	—	8 15 0	1 0 Jan. 1881
60	West Burton Hill (lead), Yorkshire	50 0 0	—	—	14 10 0	3 Jan. 1881
1024	West Caradon (cop.), Liskeard [S.E.]	9 0 0	—	—	101 1 3	10 Oct. 1882
1000	Wheal Bassett and Grylls (tin)	7 0 0	—	—	3 0 0	10 Oct. 1882
1024	Wheal Friendship (copper), Devon	20 0 0	—	—	295 10 0	5 Feb. 1881
304	Wheal Margaret (tin), Ury Lelant	18 17 6	—	—	76 8 0	1 0 May 1881
3044	Wheal Trevelyan (tin), Gwiltar	6 11 3	—	—	2 19 0	5 Mar. 1881
6400	West Fowey Consols (tin and copper)	7 10 0	—	—	0 19 0	3 May 1882
8000	Wharfedale Mining Company [L. 10s.]	0 5 6	—	—	—	0 6 Jan. 1884

FOREIGN DIVIDEND MINES.

20000	Australian (cop.), S. Australia [S.E.]	7 7 6	—	—	0 1 0	1 0 Dec. 1883
2464	Burra Burra (cop.), South Australia	5 0 0	—	—	320 0 0	8 Oct. 1884
6000	Central American (silver) [L.]	5 0 0	—	—	4 6 8	14 Dec. 1883
15000	Cape Copper Mining [L. 10] [S.E.]	7 0 0	—	—	0 15 0	5 Oct. 1884
12000	Cobre Copper Co. (cop.), Cuba [S.E.]	40 0 0	—	—	101 0 0	1 0 Jan. 1885
100000	Don Pedro No. Del Rey [L. 1] [S.E.]	0 12 6	—	—	0 9 0	9 Dec. 1883
70000	English and Australian	5 0 0	—	—	1 12 0	2 Aug. 1884
18000	East Indian Coal, Calcutta [L.]	10 0 0	—	—	—	—
25000	Fortuna (cop.), Spain [L.] [S.E.]	3 1/2	—	—	21 10 0	1 0 June 1884
25000	Gen. Mining Assoc., Nova Scotia [L.]	20 0 0	—	—	0 12 0	1 0 June 1884
48000	Kapunda Mining Co., Australia [S.E.]	1 0 0	—	—	11 6 4	5 Jan. 1885
10000	Linares (lead), Spain [L.] [S.E.]	3 0 0	—	—	1 4 0	3 Jan. 1885
9725	New Wildberg (copper)	2 0 0	—	—	0 10 0	10 Aug. 1884
60000	Panuco (copper) [L. 44] [S.E.]	3 0 0	—	—	—	—
10000	Pontgibaud (all-lead), France [S.E.]	20 0 0	—	—	2 3 0	16 Dec. 1884
9756	Port Phillip (lead), Clunes [S.E.]	1 0 0	—	—	0 12 6	1 0 July 1884
11000	St. John del Rey [L.] [S.E.]	3 1/2	—	—	63 15 0	3 0 June 1884
4414	United Mexican (all-ld.), Mexico [S.E.]	28 5 0	—	—	2 19 0	5 Oct. 1884
10000	Vancouver (coal) [L. 10]	5 0 0	—	—	0 15 0	5 Nov. 1884
50000	Victoria (London) Mining Co. [L.]	1 0 0	—	—	0 7 0	5 Jan. 1885
20000	West Canada Mining Company [L.]	1 0 0	—	—	0 17 0	5 Dec. 1884
40000	Yudamutana (cop.), S. A. [L.] [S.E.]	3 0 0	—	—	0 5 0	5 Aug. 1883

FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

10000	Alten and Qumangen Unl. (cop.) [L. 45]	4 10 0	—	—	4 5 0	15 Nov. 1883
10000	Copio Mining Company, Chile [S.E.]	16 0 0	—	—	6 18 0	10 Nov. 1882
10000	Gt. Barrier Land, Min. & Co. N.Z. [L.]	5 0 0	—	—	15 per cent.	May 1889
10815	Marquitta and New Granada [S.E.]	1 0 0	—	—	0 9 6	1 6 July 1889

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
35000	Alamillos (lead), Spain [L. 42] [S.E.]	1 5 0	1%	1%	Sept. 1884
100000	Anglo-Brazilian (gold) [L. 41] [S.E.]	0 6 0	—	—	Dec. 1883
30000	Beariz Tin Streaming Company [L. 41]	0 17 6	—	—	Oct. 1883
25000	Capula (silver), Mexico [L. 42] [S.E.]	1 5 0	1%	—	Feb. 1884
10000	Copio Smelting [L.], Chile	10 0 0	—	—	Fully paid.
70000	Dun Mountain (copper), New Zealand [L.] [S.E.]	1 0 0	—	—	Fully paid.
50000	East del Rey (gold), Brazil [L. 42] [S.E.]	2 0 0	1%	1	Feb. 1885
15000	El Chico silver mining and Reduction Company [L. 45]	3 0 0	—	—	—
8000	English and Canadian Mining Company [L.]	5 0 0	—	—	Fully paid.
40000	Fortuna (copper), West Australia [L.]	2 0 0	—	—	Fully paid.
50000	Frontino and Bolivia (gold), New Granada [L. 42] [S.E.]	1 0 0	—	—	Mar. 1884
80000	Great Northern (copper), South Australia [L. 42] [S.E.]	1 10 0	—	—	June, 1882
24000	Hindostan (copper), Bengal [L. 42]	3 0 0	—	—	Feb. 1883
4000	Hope Silver-Lead and Copper Mining Co. [L.], Jamaica	25 0 0	—	—	Fully paid.
150000	Lagunazo (sulphur, copper), Portugal [L.]	1 0 0	—	—	Fully paid.
100000	Montes Aures (gold), Brazil [L.] [S.E.]	2 0 0	3%	1/2 3/4	Fully paid.
60000	Nova Scotia (land and gold) [L. 42]	1 0 0	—	—	Nov. 1882
10000	Orea (copper) New Zealand [L. 42]	0 15 0	—	—	Sept. 1884
15000	Pachuca Silver Mining Company, Mexico [L. 41]	1 0 0	—	—	June, 1883
4000	Peel River Land and Mineral [Limited]	100 0 0	—	—	Stock.
29000	Quebrada (copper), Venezuela [L. 10]	6 10 0	5	4 1/2 5 1/2	Sept. 1884
50000	Rosa Grande (gold), Brazil [L. 41] [S.E.]	0 5 0	—	—	April, 1884
10000	San Roque (lead), Spain	5 0 0	—	—	Fully paid.
60000	Santa Barbara (gold), Brazil [L. 41]	0 15 0	—	3% 1/2 3/4	Sept. 1884
100000	Scottish Australian Mining Company [L. 41]	0 17 6	—	—	Feb. 1884
15000	South Europe Mining Company, Spain [L. 45]	5 0 0	—	—	Fully paid.
12000	Teplitz Colliery Co., Bohemia [L. 42]	3 0 0	—	—	June, 1883
30000	Val Antigua (gold) [L. 42]	0 10 0	—	5% 3/4	—
4000	Valdemar Mining Company [L. 42]	10 0 0	—	—	Oct. 1884
50000	Vallanazas (gold), Italy [L. 41] [S.E.]	0 10 0	1%	1 1/2 1 3/4	Oct. 1884
40000	Victor Emanuel (copper), Italy [L.]	1 0 0	—	—	Fully paid.
20000	Washoe (gold) [10000 £3 paid, 10000 £3 paid]	—	—	—	—
1000	Western Africa Malachite (copper) [L.]	110 0 0	—	—	Oct. 1882
10000	Wheal Ellen (copper), South Australia [L.]	5 0 0	—	—	Fully paid.
8000	Worthing (copper), South Australia [L.] [S.E.]	1 0 0	—	3% 1/2 3/4	Fully paid.
7000	Yorke Peninsula, South Australia [L. 41]	1 0 0	—	—	Fully paid.